City of San Diego

Jurisdictional Urban Runoff Management Program

Annual Report 2008

think BLUE SAN DIEGO

THE CITY OF SAN DIEGO

September 30, 2008

Christina Arias
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Subject: City of San Diego Urban Runoff Management Plan FY 2008 Annual Report

Dear Ms. Arias:

Attached please find paper and electronic copies of the City of San Diego's Urban Runoff Management Plan Fiscal Year 2008 Annual Report, and associated Appendices, submitted as part of the County of San Diego's Unified Jurisdictional Urban Runoff Management Program Annual Report.

If you have any questions, please contact Clem Brown, Associate Planner, at (858) 541-4336.

I certify under penalty of law that this Urban Runoff Management Plan Fiscal Year 2008 Annual Report and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Kris McFadden
Deputy Director

KM/cb

Attachments: 1. Fiscal Year 2008 Urban Runoff Management Plan Annual Report (with Appendices)

DIVERSITY
EMBRACES US ALL TOGETHER

Storm Water Department
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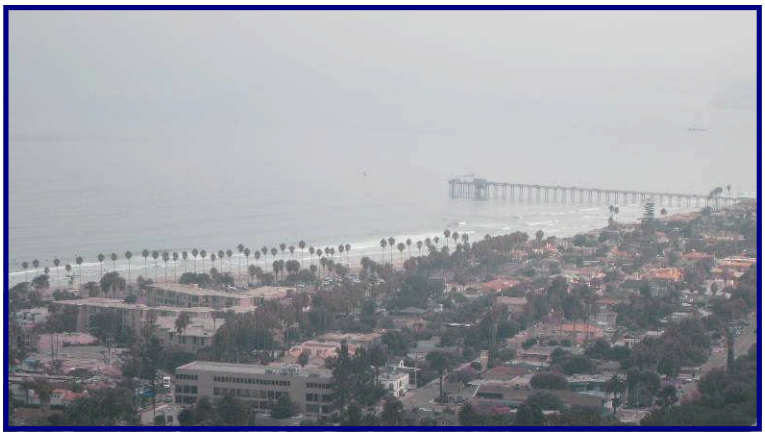
EXECUTIVE SUMMARY



San Diego is a beautiful city with its picturesque coastline and abundant aquatic resources. In addition to supporting an abundance of wildlife, San Diego's natural surface water resources— its creeks, beaches and bays—provide miles of recreational opportunities for residents and serves as the centerpiece to San Diego's tourist industry. Pollution in urban runoff has the potential to harm the region's creeks, beaches, and bays and threatens its social and economic quality of life. Preserving San Diego's natural water resources is one of the most important goals of the City of San Diego (City). The Storm Water Department is designated as the lead City agency to achieve this goal.

As an example of the City's commitment to clean beaches and bays, the City combined its Street Sweeping, Storm Drain Cleaning and Pollution Prevention functions to form a new Storm Water Department. This will improve coordination between these work units and bring greater emphasis on Storm Water quality within the City's organization as it continues its efforts to obtain a dedicated source of funding.

The City's Jurisdictional Urban Runoff Management Plan (JURMP) is the blueprint for actions that the City implements to protect and improve the water quality of the creeks, beaches, and bays in the region, and for achieving compliance with San Diego Regional Water Quality Control Board (RWQCB) Orders 2001-01 and R9-2007-0001. The JURMP was originally adopted by the City Council on January 28, 2002 and again on January 22, 2008 after major revisions to reflect the requirements of Order R9-2007-0001.

As with the previous six years, the City worked diligently during FY 2008 to implement the activities and requirements of the JURMP. During FY 2008, the City updated and improved the JURMP document (City's 2008 JURMP) in accordance with the RWQCB Order Number R9-2007-0001. The City's 2008 JURMP became effective March 24, 2008. As a result of the mid-reporting-period effective date, FY 2008 is a unique reporting period because there were two JURMPs in effect during FY 2008: the City's 2002 JURMP covering the period between July 1st, 2007 through March 23rd, 2008 and the City's 2008 JURMP covering the period between March 24th, 2008 through June 30th, 2008.

There were many improvements incorporated into the City's 2008 JURMP. While some changes were initiated by the City to improve effectiveness, efficiency, and streamline resources, there were also many changes mandated by Order R9-2007-0001. A summary of the changes is outlined in Section 14.0 "*Modifications to the URMP"* of the City's 2008 JURMP. Some notable changes include:

- Each department made significant improvements to internal water quality protection practices and procedures.
- The City conducts a second inspection of municipal areas and facilities each year to ensure proper maintenance and use of good housekeeping practices and other best management practices (BMPs).
- For both public and private new development/ redevelopment projects, the Storm Water Standards Manual was updated with increased BMP requirements and inspection schedules.
- Increased staff education and training occurs across the City.
- Operations and Maintenance Division (formerly Street Division) significantly increased its storm drain cleaning and street sweeping programs.
- The Storm Water Department significantly increased efforts in all of its core programs including facility inspections, enforcement, water quality monitoring, education and outreach, and municipal coordination.

While the City is implementing the JURMP within the City's jurisdictional boundaries, implementation of the Watershed Urban Runoff Management Program (WURMP) is also occurring in conjunction with other stakeholders and jurisdictions to improve water quality not only within the City's jurisdictional boundaries but also in its watersheds. The City must also address several state- and federally-mandated storm water quality programs now and in the coming years. In addition to Municipal Permit requirements, the City must comply with State-mandated Areas of Special Biological Significance (ASBS) requirements in the La Jolla Shores area, and Total Maximum Daily Load (TMDL) programs.

PROGRAM ACCOMPLISHMENTS

Development and Construction

During FY 2008 the City revised the Storm Water Standards to meet the requirements of Order R9-2007-0001 and was submitted as part of the City's 2008 JURMP in March 2008. The City ensured that SUSMP priority development project requirements were applied to all priority development projects (72 private projects and 2 capital improvement projects). During FY 2008, 321 private development projects listed in the City's inventory were also visited for treatment control BMP inspections.

Municipal Activities

The City continued to place emphasis on storm water pollution prevention practices and awareness integrated into all field operations and activities at municipal facilities in FY 2008. Notable efforts in FY 2008 included:

- Street Division collected 6,642 tons of debris by conducting street sweeping of 78,131 curb miles.
- Street Division inspected every channel within the City twice and removed 236.11 tons of anthropogenic litter from 9.2 miles of channels
- Street Division also inspected 11,193 and cleaned 14,058 inlets, catch basins, and cleanouts which resulted in the remove of 433.97 tons of debris.
- The Environmental Services Department collected 511.7 tons of Household Hazardous Waste in FY 2008.

- Departmental storm drain system inspection and cleaning resulted in the removal of 1.4 tons of debris.
- Departmental parking lot sweeping resulted in the collection of 1,348 tons of debris
- As another broad indicator of the overall effectiveness of the City's water quality protection efforts, specifically from the Metropolitan Wastewater Department (MWWD), the City continued to reduce the number of public sewer spills from 365 spills in 2000 to 69 in 2007, an 81 percent reduction since 2000 (Figure 1). The City believes that their JURMP water quality protection efforts contributed to these reductions.

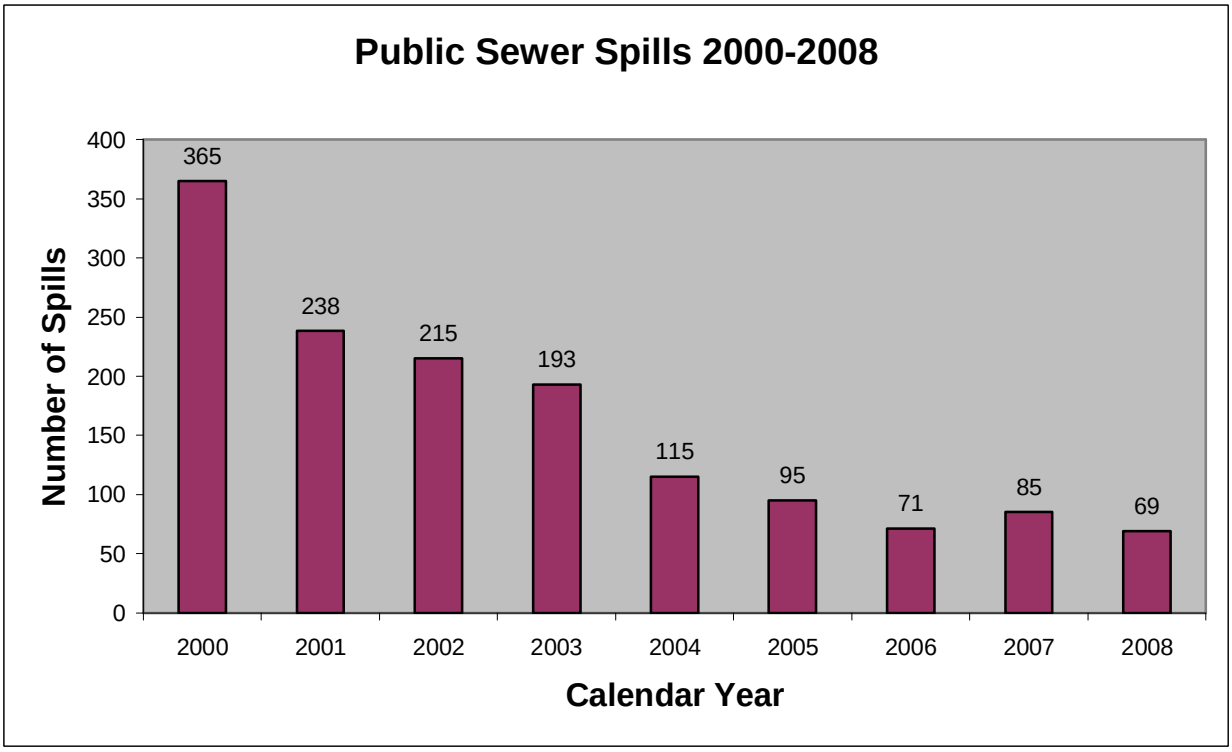


Figure 1. Number of Public Sewer Spills in City of San Diego between 2000 and 2008.

Industrial and Commercial Programs

The City continued to expand its industrial and commercial programs in order to institute effective measures to reduce pollutants and comply with Order R9-2007-0001. This year's efforts included: the addition of a mobile sources component; 21% of the City's commercial and industrial inventory receiving site visits and/or inspections; and, over 50% of all stationary sites determined to pose a high threat to water quality. The pollutant discharge potential assessment (PDPA) form was utilized during the inspection of industrial and commercial businesses to help refine the pollutant discharge potentials (PDP) assigned to various source types in the Copermittees' Baseline Long-Term Effectiveness Assessment (2005). The form is intended to be a semi-quantitative tool to identify which sites are major sources of the principal pollutants of concern for storm water.

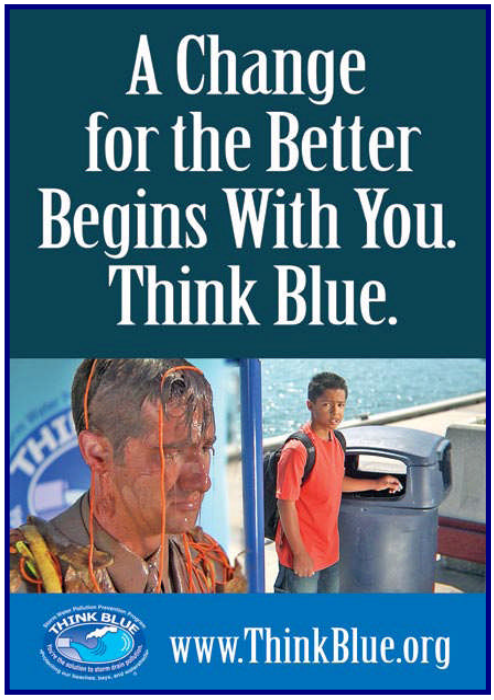


Figure 2: *Think Blue Karma Advertisement*

Education and Outreach

June 30, 2008, concluded the eighth year of the *Think Blue* Media, Education, and Public Advocacy Campaign. The campaign was able to put forth a broad, multifaceted effort, which included targeting external audiences as identified in Order R9-2007-0001 (municipal departments and personnel, construction site owners and developers, industrial/commercial owners and operators, mobile businesses, and residential community, general public and school children), participating in grant education and outreach activities, and actively participating in regional outreach and education efforts with the Copermittees. In FY 2008 the City's *Think Blue* messages to the general public made approximately 55,424,513 impressions through PSA airtime, free placement on media websites, billboards, mall signs, and transit shelters (Figure 2). The *Think Blue* storm water education campaign also reached approximately 996,400 individuals through special events conducted by the City in FY 2008.

Special Projects

Special projects are an integral tool in the City's effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. The City's Storm Water Division achieved significant benefits to water quality beyond its FY 2008 $23 million budget by leveraging approximately $11.8 million (this amount includes both grant and match funding) in special projects, as summarized below. In addition to these water quality improvement projects, the Pollution Prevention Division also participated in six TMDL programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems.

FUTURE DIRECTIONS

Currently, the City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, TMDLs, ASBS, and Cleanup and Abatement Orders (CAOs). By setting stringent water quality standards that the City must meet, these regulatory programs, in effect, mandate the implementation of structural (e.g., capital improvement projects) and non-structural (e.g., education and outreach, street sweeping) activities. Given that these regulatory programs essentially require similar, parallel efforts, careful program coordination is necessary to avoid overlapping efforts, wasted resources, and loss of time. Therefore, the City is taking an integrated, "Strategic Approach" towards meeting the requirements of these regulatory programs simultaneously. The Pollution Prevention Division began planning for a "Strategic Approach" to implementation in FY 2006 and has continued these efforts through FY 2008. Although initially the focus will be on the City's watershed-based programs and activities (particularly in the Chollas Creek and Mission Bay watersheds), implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as data and experience is gained from the watershed-based efforts.

The City will continue to ensure that the requirements under Order R9-2007-0001 and the City's 2008 JURMP are being properly implemented for all program areas. To provide focus for program improvements in FY 2008, the Pollution Prevention Division will focus on the following areas:

- Continue integrated strategic approach to program planning and implementation;
- Study needs and options for storm water-dedicated funding sources;
- Improve data management, reporting and assessment; and
- Refine municipal inspection program.

The City will continue to pursue alternative funding sources for urban runoff management and water quality protection to support the anticipated expansion of the programs over time. As part of these efforts, the City will continue to partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding, and staff will continue to work closely with the other storm water program managers in the region to collaborate on program implementation strategies. It is the City's objective to institute the most effective and efficient strategies in the San Diego region to clean and protect its creeks, beaches and bays for future generations.

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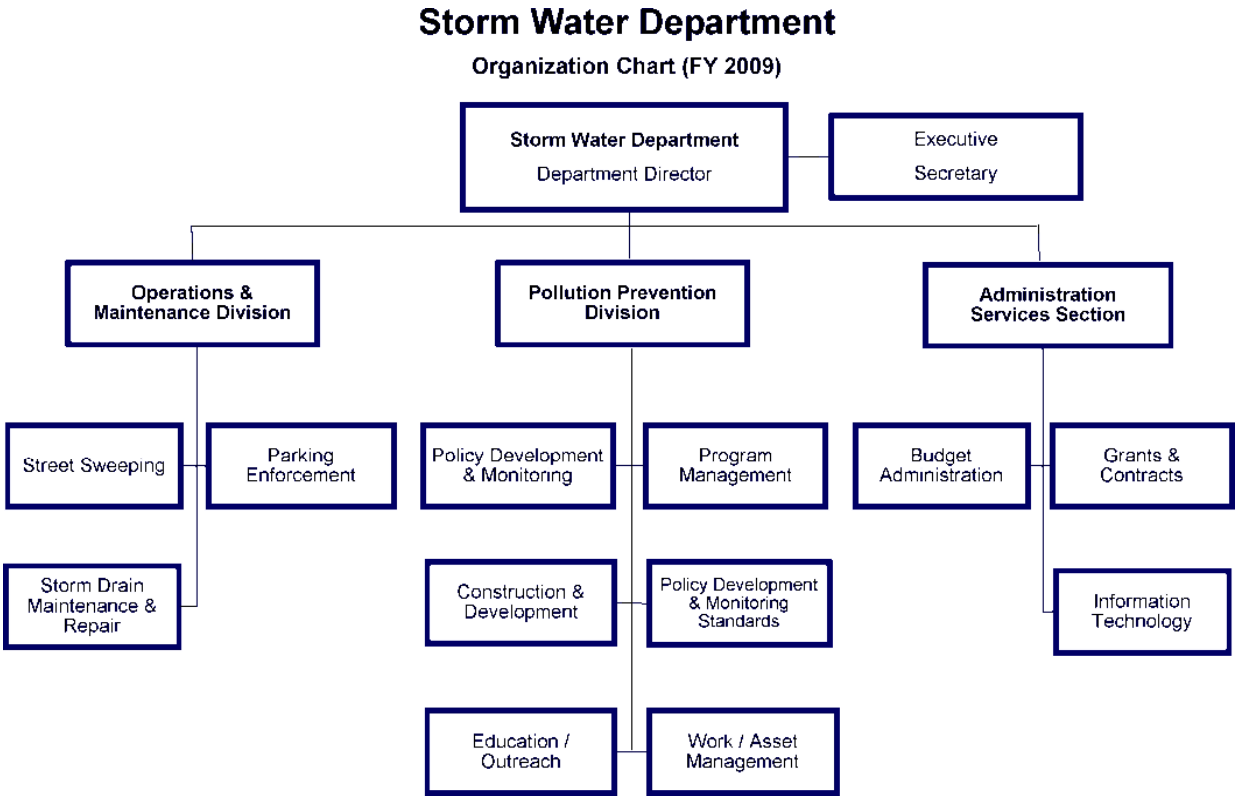
1 INTRODUCTION

1.1 PROGRAM OVERVIEW FOR FISCAL YEAR 2008

The mission of the Storm Water Pollution Prevention Division (Pollution Prevention Division) is to:

> "Protect and improve the water quality of rivers, bays, and the ocean for the citizens of San Diego and future generations by eliminating and reducing pollutants in urban runoff and storm water in an efficient, effective, and professional manner as part of a high-performing team through public education, employee training, watershed collaboration, field testing, investigations, enforcement, regional programs, and coordination."

In order to improve and protect our region's natural water resources and create a streamlined work focus, the City reorganized two of its major divisions from two departments to create the Storm Water Department. The reorganization became effective on July 1, 2008. An organization chart of the new department is shown below.



The reorganization creates more effective coordination between the Pollution Prevention Division and the Operations and Maintenance Division, two of the primary work groups responsible for program implementation.

The Storm Water Department is the lead office for the efforts of the City of San Diego (City) to reduce pollutants in urban runoff and storm water to the maximum extent practicable and achieve compliance with San Diego Regional Water Quality Control Board (Regional Board) Order Numbers 2001-01 and R9-2007-0001 National Pollutant Discharge Elimination System (NPDES) No. CAS0108758 (Municipal Permit).

The Storm Water Department is actively engaged in a number of activities that will cumulatively result in improvements to water quality. The Citywide blueprint for protecting natural water resources is the Jurisdictional Urban Runoff Management Plan (JURMP), adopted by the City Council on January 28, 2002 and again on January 22, 2008. The primary activities that the City continues to implement include, but are not limited to: public education; employee training; water quality monitoring; source identification; code enforcement; watershed management; and storm water best management practices (BMPs) development and implementation within the City's jurisdictional boundaries.

While the City is implementing the JURMP within the City's jurisdictional boundaries, implementation of the Watershed Urban Runoff Management Program (WURMP) and the Total Maximum Daily Load (TMDL) programs are also occurring in conjunction with other stakeholders and jurisdictions to improve water quality not only within the City's jurisdictional boundaries but also in its watersheds.

The Storm Water Department represents the City on storm water and Municipal Permit issues in collaboration with the Principal Permittee (County of San Diego) and the Regional Board. In addition, the Storm Water Department provides technical expertise and guidance to all City departments to ensure implementation and compliance with the Municipal Permit. Furthermore, the Storm Water Department prepares and transmits this annual report of all City activities governed by the Municipal Permit to the County of San Diego for submittal to the Regional Board and is the responsible entity that certifies that the City is in compliance with all Municipal Permit requirements.

1.2 REPORT ORGANIZATION

This Fiscal Year (FY) 2008 Annual Report has been organized into sections matching the table of contents agreed to and submitted by the Copermittees to the Regional Board. In an effort to present a comprehensive report, the City has included a Special Projects section which is not included in the regional standard reporting format.

Each section of the FY 2008 Annual Report is consistent with the components of the Municipal Permit and, where applicable, identifies priority pollutant sources, applicable requirements, and notable implementation efforts.

1.3 REPORTING PERIOD

This Annual Report provides information for FY 2008: July 1st, 2007, to June 30th, 2008. This is a unique reporting period because there were two JURMPs in effect during this period. One JURMP covering the period between July 1st, 2007 through March 23rd, 2008 and a revised JURMP covering the period between March 24th, 2008 through June 30th, 2008.

The City has attempted to report all activities under the 2008 JURMP reporting requirements; however, this was not always possible. As the reporting for this particular reporting period may

be confusing, the City has attempted to simplify the information presented by identifying, where appropriate, when the information and data pertains only to the first three quarters of the reporting period and therefore under the 2002 JURMP only.

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2 DEVELOPMENT PLANNING

2.1 INTRODUCTION

The City continued to implement the Planning and Development Component of the JURMP to reduce the impacts of new development and redevelopment on storm water quality. Highlights of the City's Land Use Planning Component during FY 2008 include implementation of the previous and recently updated *Storm Water Standards Manual*, implementation of the *Source Water Protection Guidelines for New Development*, and continued integration of storm water protection policies in the City's Community Plans and General Plan.

2.2 LAND USE PLANNING

2.2.1 General Plan

During FY 2008, the City completed its General Plan update. Updates included a wide range of policies to help guide development and provide a conservation "blueprint" so that San Diego's environmental quality and heritage are preserved, maintained, and improved and can be sustained for current and future generations.

General Plan elements revised in 2008 relevant to urban runoff include:

Conservation Element. The Conservation Element focuses on conserving natural resources, protecting unique landforms, preserving and managing the open space system, beaches and watercourses, preventing and reducing pollution, and ensuring preservation of our quality of life in San Diego. Many of the policies described in the element are already being implemented throughout the City, via specific programs and plans administered by various City departments, such as the Pollution Prevention Division, the Sustainable Communities Program, and the Multiple Species Conservation Program (MSCP). The primary goals related to storm water are for the protection and restoration of water bodies, including reservoirs, coastal waters, creeks, bays, and wetlands, and the preservation of natural attributes of both the floodplain and floodway without endangering life and property. The Conservation Element policies that relate to urban runoff management are included below:

CE-E.1. Continue to develop and implement public education programs.
- a. Involve the public in addressing runoff problems associated with development and raising awareness of how an individual's activities contribute to runoff pollution.
- b. Work with local businesses and developers to provide information and incentives for the implementation of BMPs for pollution prevention and control.
- c. Implement watershed awareness and water quality educational programs for City staff, community planning groups, the general public, and other appropriate groups.

CE-E.2. Apply water quality protection measures to land development projects early in the process – during project design, permitting, construction, and operations – in order to minimize the quantity of runoff generated on-site, the disruption of natural water flows and the contamination of storm water runoff.
- a. Increase on-site infiltration, and preserve, restore or incorporate natural drainage systems into site design.
- b. Direct concentrated drainage flows away from the MHPA and open space areas. If not possible, drainage should be directed into sedimentation basins, grassy swales or mechanical trapping devices prior to draining into the MHPA or open space

areas.

c. Reduce the amount of impervious surfaces through selection of materials, site planning, and street design where possible.
d. Increase the use of vegetation in drainage design.
e. Maintain landscape design standards that minimize the use of pesticides and herbicides.
f. Avoid development of areas particularly susceptible to erosion and sediment loss (e.g., steep slopes) and, where unavoidable, enforce regulations that minimize their impacts.
g. Apply land use, site development, and zoning regulations that limit impacts on, and protect the natural integrity of topography, drainage systems, and water bodies.
h. Enforce maintenance requirements in development permit conditions.

CE-E.3. Require contractors to comply with accepted storm water pollution prevention planning practices for all projects.
   a. Minimize the amount of graded land surface exposed to erosion and enforce erosion control ordinances.
   b. Continue routine inspection practices to check for proper erosion control methods and housekeeping practices during construction.

CE-E.4. Continue to participate in the development and implementation of Watershed Management Plans for water quality and habitat protection.

CE-E.5. Assure that City departments continue to use "Best Practice" procedures so that water quality objectives are routinely implemented.
   a. Incorporate water quality objectives into existing regular safety inspections.
   b. Follow BMPs and hold training sessions to ensure that employees are familiar with those practices.
   c. Educate City employees on sources and impacts of pollutants on urban runoff and actions that can be taken to reduce these sources.
   d. Ensure that contractors used by the City are aware of and implement urban runoff control programs.
   e. Serve as an example to the community-at-large.

CE-E.6. Continue to encourage "Pollution Control" measures to promote the proper collection and disposal of pollutants at the source, rather than allowing them to enter the storm drain system.
   a. Promote the provision of used oil recycling and/or hazardous waste recycling facilities and drop-off locations.
   b. Review plans for new development and redevelopment for connections to the storm drain system.
   c. Follow up on complaints of illegal discharges and accidental spills to storm drains, waterways, and canyons.

CE-E.7. Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.

Mobility Element. The Mobility and Land Use elements of the General Plan Update are closely linked. An overall goal of the Mobility Element is to further the attainment of a balanced, multi-

modal transportation network that improves mobility and minimizes environmental and neighborhood impacts, including storm water and urban runoff pollution. The element includes a wide range of policies which advance a strategy for congestion relief and increased transportation choices in a manner that strengthens the City of Villages land use vision and fosters storm water pollution prevention by reducing automobile trips and demand for large parking areas. The Land Use Element identifies existing and planned land uses, and the Mobility Element identifies the proposed transportation network and strategies which have been designed to meet the future transportation needs generated by the land uses.

Urban Design Element. This element includes language on minimizing the amount of surface parking lots for both aesthetic purposes and to allow for the infiltration of urban runoff into the ground. It calls for the use of trees and other landscape to provide shade, screening and filtering of storm water runoff in parking lots.

Public Facilities, Services, and Safety Element. This element specifically discusses storm water infrastructure in the City. It calls for the protection of beneficial water resources through pollution prevention and interception efforts. The element states as a goal for the City to have a storm water conveyance system that effectively reduces pollutants in urban runoff and storm water to the maximum extent practicable. It recognizes both the roles of structural and non-structural BMPs in preventing pollution in order to comply with federal and state mandates regarding storm water pollution and the need for the City to engage in comprehensive storm water planning, secure funding sources, and strengthens cooperation with other stakeholders in the region. The primary goals related to storm water are for the protection of beneficial water resources through pollution prevention and interception efforts, and for the storm water conveyance system that effectively reduces pollutants in urban runoff and storm water to the maximum extent practicable. The Public Facilities, Services, and Safety Element policies that relate to urban runoff management are included below:

PF-G.1. Ensure that all storm water conveyance systems, structures, and maintenance practices are consistent with federal Clean Water Act and California RWQCB NPDES Permit standards.

PF-G.2. Install infrastructure that, where feasible, includes components to capture, minimize, and prevent pollutants in urban runoff from reaching receiving waters and potable water supplies.

PF-G.3. Meet and preferably exceed regulatory mandates to protect water quality in a cost-effective manner monitored through performance measures.

PF-G.4. Develop and employ Master Drainage Plans for the City's watersheds to foster a comprehensive approach to storm water infrastructure improvements.

PF-G.5. Identify and implement BMPs for projects that repair, replace, extend or otherwise affect the storm water conveyance system. These projects should also include design considerations for maintenance, inspection, and, as applicable, water quality monitoring.

PF-G.6. Identify partnerships and collaborative efforts to sponsor and coordinate pollution prevention BMPs that benefit storm water infrastructure maintenance and improvements.

Recreation Element. This element recognizes the importance of parks and open space in the City not only for recreational purposes, but also to allow for the infiltration of urban runoff into the ground. The primary goals related to storm water are to preserve, protect and enhance the integrity and quality of existing parks, open space, and recreation programs citywide, and to preserve, protect and enrich natural, cultural, and historic resources that serve as recreation facilities. The recreation element contains a policy to protect beaches and canyons from uncontrolled urban runoff.

2.2.2 Community Plans

Community plans are documents that guide the growth and development of a community. They include land use designations, design recommendations, and policies on a wide range of topics, including water quality protection. They are a part of the City's General Plan and the City is continuing to implement the Community Plans where applicable. Community plan activities that occurred during FY 2008 related to storm water include:

Mission Valley Community Plan – The Mission Valley Community Plan makes broad recommendations concerning the protection of urban runoff and storm water quality. Updates to the plan are significant to water quality since the San Diego River flows through Mission Valley. The Plan will reference or incorporate recommendations contained in the San Diego River Master Plan. During FY 2008 Internal City staff meetings were held to continue the process of updating the Community Plan.

Ocean Beach Precise Plan Update – The Ocean Beach Precise Plan is currently undergoing an update and will become known as the Ocean Beach Community Plan. The Ocean Beach Community Plan will have broad goals and recommendations relating to urban runoff and water quality. Goals will include: ensuring a reliable system of water, storm water, and sewer facilities to serve the existing and future needs of the community; preserving the natural amenities of Ocean Beach, such as its open space, coastal bluffs, beaches, tidepools, and coastal waters; and protecting coastal and waterway resources by promoting sensitive development and restoring and preserving natural habitat. During FY 2008 the Ocean Beach Precise Plan Update Subcommittee met and reviewed draft elements of the Plan and offered revisions to City staff.

2.2.3 Drainage Design Manual

The Engineering and Capital Projects Department (ECP) began work in FY 2006 on a City supplement to the County of San Diego's *Drainage Design Manual* and *Hydrology Manual*. As part of this effort, ECP began coordinating with the Pollution Prevention Division staff to incorporate new requirements associated with storm water quality protection. A date for completion of this document has not been established; however a review of City land development approval processes has found that modifications to this manual are not crucial for assuring effective implementation of BMPs for new development.

2.3 ENVIRONMENTAL REVIEW PROCESS

The Environmental Analysis Section (EAS) in the Development Services Department (DSD) is responsible for using the California Environmental Quality Act (CEQA) Initial Study checklist and consultation with other project review staff to identify projects that may result in water quality impacts during and/or after construction. EAS reviewed proposed projects subject to environmental review under CEQA, including City capital improvement projects, to independently determine proposed projects that have potentially significant impacts on the

environment. To assist in identifying appropriate measures to mitigate potentially significant storm water quality impacts to below a level of significance, EAS staff consulted with DSD engineering staff to determine appropriate storm water BMPs to be required. DSD Engineering staff reviewed and approved the storm water BMPs that were proposed by project applicants.

2.4 DEVELOPMENT PROJECT APPROVAL AND VERIFICATION PROCESS

2.4.1 Source Characterization

Chapter III of the Storm Water Standards identifies the anticipated pollutants from different land use types and categories of project types that are likely to generate significant pollutants. During the reporting period, the definition of Priority Projects was updated in Chapter III of the Storm Water Standards to match the project types identified in Order R9-2007-0001. The Storm Water Standards requires priority projects to identify the pollutants of concern in receiving waters and requires that priority projects identify conditions of concern such as topography, site soils, vegetation conditions, and percent impervious area among others.

2.4.2 Best Management Practice Requirements

The Storm Water BMP Performance Standards as described in Chapter III of the Storm Water Standards were required and applied to projects including standard and priority projects within the City. Prior to March 24th, 2008 the projects were subject to the BMP requirements of the previous Storm Water Standards. After March 24th, 2008, private development project applications deemed complete, and municipal development projects that had initiated design, were subject to the BMP requirements of the current Storm Water Standards as submitted in March 2008 as part of the City's JURMP submittal.

At this time there are no updates to the City's BMP requirements for Land Development activities as described in the City's 2008 JURMP. It is anticipated that during the course of the next two reporting periods there will be modifications to required BMPs as hydromodification and revised SUSMP requirements are developed, approved and implemented.

2.4.3 Program Implementation

2.4.3.1 *SUSMP*

The City maintains listings of both private and public development projects that have been initiated and completed during the reporting period. A Storm Water Applicability Checklist is a required submittal during the project application process as a part of the urban runoff approval process. City project reviewers do not approve construction drawings until the recommendations of the Water Quality Technical Reports are incorporated onto the plans. This is the system in place to ensure that the projects incorporate all requirements of the urban runoff approval process. The systems are being tracked through a combination of a project tracking database and Excel for private developments and Primavera (tracking software) for public projects.

During FY 2008, the City reviewed 12,688 private projects as a part of the urban runoff approval process. Of these, 72 were determined to be priority development projects. The City also initiated 36 capital improvement projects that were all evaluated as a part of the urban runoff approval process. Of these, two were determined to be priority development projects. Appendix A contains a listing of the projects for which SUSMP priority development project requirements were applied during FY 2008. The listing includes both private and public projects. The City confirms that all applicable SUSMP BMP requirements were applied to all priority development projects during the reporting period. The applicability and confirmation of these requirements is

tracked through a combination of a project tracking database and Excel for private developments and Primavera for public projects.

Included in Appendix B is a synopsis of a development project that was conditioned to meet SUSMP requirements. Included in the synopsis are the base project information and a description of the required BMPs.

2.4.3.2 *Treatment Control*

A watershed-based database has been implemented to track and inventory treatment control BMPs and maintenance within the jurisdiction (see Appendix C for an updated Private Treatment Control BMP Inventory). DSD and ECP annually provide an updated inventory of approved treatment control BMPs. During the reporting period, the City initiated its field verifications and inspections of the established inventory.

During FY 2008, 321 private development projects listed in the City's inventory were visited for treatment control BMP inspections. Full treatment control BMP inspections were performed at 249 of these private projects. Of the remaining 75 projects, 52 were still under construction and 20 could not be accessed for inspection due to a locked gate or absent resident.

I.1.1.1 A total of 668 treatment control BMPs at the 249 projects were inspected to evaluate maintenance effectiveness. 538 of the 668 treatment control BMPs inspected (81 percent) were drainage inserts. Forty three percent of the total BMPs inspected were found to need significant maintenance. Eighty five percent of the treatment controls requiring maintenance were drainage inserts. The City will be following up with sites that possess BMPs in need of maintenance as necessary.

I.1.1.2 During the inspection process it was determined that some treatment control BMPs could not be located. The City has begun conducting research regarding these projects and has found that many of these cases may be due to documentation errors. Research will continue in ensuing months to determine if the inventory needs corrections, or if additional effort in locating these BMPs is required.

I.1.1.3 In addition to City conducted inspections, the Municipal Permit requires annual verification of operation and maintenance of treatment control BMPs installed within the City's jurisdiction. Annual verification must be provided by the party responsible for treatment control BMP maintenance and must be obtained by the City prior to the start of the rainy season (October 1st). Since the new City's 2008 JURMP did not go into effect until March 2008, towards the end of the rainy season, the City did not require annual maintenance verification of treatment control BMP maintenance prior to the 2007-2008 rainy season. The City did, however, begin the process of obtaining annual BMP maintenance verifications for FY 2009.

I.1.1.4 A BMP maintenance verification form, FAQ sheet, and introductory letter were developed in 2007-2008 (see Appendix E for an example). Using the property owner names and addresses recorded in the City's BMP database, BMP maintenance verification forms were mailed to all the projects included in the City's BMP database in July 2008. As maintenance verification forms are returned to the City, results will be documented in the City's BMP Database and summarized in the next annual report.

2.4.3.3 *Hydromodification Management Plan*

The City has been involved in the Hydromodification Management Plan (HMP) development and carried a significant workload during FY 2008. The City staff was involved in the consultant team selection and the two workgroups formed to develop the HMP. One workgroup is a

Copermittee group whose responsibilities are to oversee the HMP development and guide the consultant team's work. The other workgroup is the Technical Advisory Committee whose responsibilities include providing technical guidance to the consultant team. The City is an active participant in both groups and in the review of all documents that are generated as a part of the HMP development.

Interim HMP requirements were established during the reporting period and became effective March 24, 2008. Since the HMP requirements took affect, the City has not had any priority development projects trigger HMP requirements, those that are greater than 50 acres.

2.4.3.4 *Enforcement*

During the treatment BMP inspection process, evidence of recent illegal discharges was observed at two of the sites inspected. The City promptly sent code enforcement officials out to these sites. One site was issued a Notice of Violation (NOV) for a sewage discharge, while no violation was observed at the second site.

2.4.3.5 *Education and Outreach to the Public*

During FY 2008, the Pollution Prevention Division presented and discussed updates to the Storm Water Standards manual with the following entities: City Council, Planning Commission, Technical Advisory Committee to the Land Use and Housing Committee, Natural Resources and Council Committee, Open Space Advisory Committee, the Public Utilities Advisory Committee, the Association of Engineering Geologists, and the American Society of Civil Engineers local chapter geotechnical group.

The Pollution Prevention Division also conducted 2 public meetings on the updates to the Storm Water Standards manual, and multiple focus group meetings with environmental and industry stakeholders. Pollution Prevention Division staff also contacted design professionals and other technical experts to solicit their participation in the Technical Advisory Committee for the Hydromodification Management Plan (HMP), participated in the Technical Advisory Committee for the hydromodification project by the Southern California Coastal Water Research Project, and provided information on the update to the Storm Water Standards Manual on the *Think Blue* website which provided the public the opportunity to comment via an online comment form.

Table 2-1: FY 2008 Land-Use Planning Education and Outreach to the Public

Activity	Target Audience*	# of times	Estimated # of people targeted
Public Outreach	General Public	2	40

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3 CONSTRUCTION

3.1 INTRODUCTION

The City continued to implement the Construction Component of its Urban Runoff Management Plan (URMP) in FY 2008 to prevent and reduce pollutants in runoff from construction activities within the City.

3.2 SOURCE CHARACTERIZATION

During the entire reporting period, the City maintained a regularly updated construction site inventory. Through the reporting period, the City met the minimum JURMP requirement of making monthly updates to the inventory including additions and deletions of sites. There are two departments responsible for maintaining construction site inventories: Engineering Capital Projects (ECP) is responsible for all of the City's CIP and grading projects; DSD is responsible for private development in the City.

The project managers in the ECP maintained an inventory of projects that were in construction using the "CityWorks" program. The supervisors at the Field Engineering Division maintained a paper inventory that contained the most current information on when a site was last inspected and the current construction status including priority adjustments. This paper record was updated through weekly reports from the Resident Engineers and the information was routinely transferred into a reporting spreadsheet.

DSD maintained an inventory of construction permits in the Project Tracking System (PTS). The system was updated as new permits were issued and when permits were closed out. The building inspectors also provided updates to this inventory based on site inspections.

3.3 UPDATES TO ORDINANCES, BEST MANAGEMENT PRACTICE REQUIREMENTS AND APPROVAL PROCESSES

Construction sites are required by the Storm Water Ordinance to conform to the Construction Storm Water BMP Performance Standards described in Chapter IV of the City's Storm Water Standards. The City completed Standards modifications during the reporting period. These changes were completed in order to provide the authority to require development projects to comply with the City's 2008 JURMP requirements. The modifications included revisions to the Best Management Requirements as well as the Approval Process, include requirements specific to the wet and dry season, and protective measures for rain events that occur in the dry season. These modifications were documented in the 2008 City JURMP and revised Storm Water Standards, the reader should direct their attention to those documents for details.

3.4 PROGRAM IMPLEMENTATION

3.4.1 Construction Urban Runoff Approval Process

All construction sites within the City were required to undergo the City's construction urban runoff approval process to determine the appropriate construction requirements. There are two departments responsible for implementing the construction urban runoff approval processes; ECP is responsible for planning, design and construction of all of the City's CIP projects; DSD is responsible for reviewing construction and development projects for private development in the City.

All ECP project managers of CIP projects were required to incorporate the construction requirements set forth in the Storm Water Standards Manual. The requirements were incorporated into the project specifications and plans prior to approval in order to fund the construction of the project. To assist project managers in assuring consistency, storm water language was included in the boilerplate CIP Standard Specifications. Standard drawings were used in conjunction with project specific drawings where appropriate. Drawings were routed internally (within the design sections) as a "peer plan check" to ensure adequate inclusion of construction BMP measures.

Private projects were reviewed by DSD staff to ensure conformance to Chapter IV of the Storm Water Standards prior to issuance of any construction permits. All projects were required to incorporate construction BMPs on the plans and in the appropriate construction storm water plan (Water Pollution Control Plans for projects that are not subject to the State Construction NPDES Permit, and Storm Water Pollution Prevention Plans for projects that are subject to the State Construction NPDES permit). The review staff also verified enrollment under the statewide General NPDES permit for Construction when appropriate.

3.4.2 BMP Implementation

Through the development approval and construction inspection processes, the City confirmed that all designated BMPs were required to be implemented and implemented throughout the reporting period for all construction sites. During the active construction phase of projects, if BMPs were not implemented or adequately implemented, the inspection program identified such deficiencies and required that implementation and/or adequate implementation would be completed.

3.4.3 Maximum Disturbed Area for Grading

The City began implementing the maximum disturbed area for grading activities on March 24th, 2008. From March 24th, 2008 through June 30th, 2008, the City did not have any projects that met the maximum disturbed area for grading criteria established in the City's 2008 JURMP. Therefore there are no project sites to report for this reporting period.

3.4.4 Advanced Treatment Sites

The City began implementing the advanced treatment requirements for grading activities on March 24th, 2008. From March 24th, 2008 through June 30th, 2008, the City did not have any projects that met the advanced treatment criteria established in the City's 2008 JURMP. Therefore there are no project sites to report for this reporting period.

3.4.5 Inspections

3.4.5.1 *Field Engineering*

Construction sites are required to be inspected based on the frequency schedule set forth in the City's URMP. REs in the Field Engineering Division inspect BMPs associated with grading permits (private projects) and many public projects.

Resident Engineers inspected and issued Storm Water Notices as-needed in the dry season, and at least bi-weekly in the rainy season for high priority projects. In accordance with the City's URMP, medium projects are inspected monthly during the rainy season and as-needed during the dry season. Low priority projects are inspected on an as-needed basis during both the rainy and dry seasons. The Field Engineering Division's Storm Water notice is in triplicate form: one

copy is given to the contractor, one is filed with the project, and the last copy is filed in the general storm water files with the Construction Storm Water Management section.

Appendix F lists all of the construction projects active during the reporting period and the following corresponding information on a project by project basis:

- City Permit Number
- Project Location
- Storm Water Priority (Inspection Frequency)
- # of weeks active in the Rainy Season
- # of inspections in Rainy Season
- # inspections in Dry Season
- Total # of inspections for the site during the reporting period

During FY 2008, 713 Field Engineering construction sites were in the active construction phase: 115 high priority; 225 medium priority; and, 373 low priority. In total, the Field Engineering Division conducted over 7,500 inspections throughout the reporting period.

The following is a summary table of the number of high, medium and low priority projects and the inspections conducted at each type.

Table 3-1: FY 2008 Inspection Summary

Inspection Item	No. of Sites
High Priority Sites Receiving Required No. of Inspections	111
High Priority Sites not Receiving Required No. of Inspections	4
Medium Priority Sites Receiving Required No. of Inspections	222
Medium Priority Sites not Receiving Required No. of Inspections	3
Low Priority Sites Receiving Required No. of Inspections	373
Low Priority Sites not Receiving Required No. of Inspections	0

The City recognizes that a small percentage of the required inspections were not conducted for the high and medium priority project sites during FY 2008 (in some cases, some of the inspections may have occurred, but were not tracked). Of 704 sites, seven did not receive the full number of inspections required. The missing inspections at the seven sites constituted 19 of the over 3,100 inspections required to be conducted during FY 2008, representing less than 0.7%. The City inspectors were on site during those weeks of the missing inspections and although not formally documenting storm water inspections, part of their inspection routine is to evaluate storm water BMPs for adequate implementation thereby ensuring that the sites are adequately protected against non-storm water and/or pollutant discharges.

To address this issue, inspection departments (Development Services and Engineering & Capital Projects) will be emphasizing inspection requirements at future trainings, and the Pollution Prevention Division will be meeting with these departments on a quarterly basis to ensure inspectors are kept current with baseline and seasonal storm water requirements. In addition, during FY 2009, the City changed its method of tracking the frequency of inspections so that the date of inspection is tracked electronically.

In general, the inspections resulted in compliant construction sites. Due to the size of the City and the number of projects that are on-going in any given year, inspection results are widely variable. Common corrections needed after review by the City include:

- Maintaining Construction Exit/Entrances
- Dust Control
- Inadequate or poorly maintained silt fence
- Inadequate or poorly maintained erosion control

In all situations of site BMP deficiencies, the inspection and enforcement process resulted in bringing sites into compliance.

In order to ensure that all required inspection steps were performed to review for compliance, the City used a standardized process for all inspections. If compliance was not observed, enforcement actions ensued. As required by JURMP, all inspections at a minimum included:

a. A check for coverage under the General Construction Permit (Notice of Intent (NOI) and/or Waste Discharge Identification No.) during initial inspections;
b. Assessment of compliance with the Construction Storm Water BMP Performance Standards located in Chapter IV of the City of San Diego Storm Water Standards (and enforceable by San Diego Storm Water Management and Discharge Control Ordinance ("Storm Water Ordinance") Section 43.04, et seq.);
c. Assessment of BMP effectiveness;
d. Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff;
e. Education and outreach on storm water pollution prevention, as needed, and
f. Creation of a written inspection report.

3.4.5.2 *Inspection Services*

Building Inspectors in DSD's Inspection Services Division inspect construction BMPs associated with projects performing construction under building permits. The Inspection Services Division of DSD inspects building sites routinely for compliance with storm water requirements. Inspectors within the division are assigned a district and are responsible for monitoring projects in that area. Each inspector routinely monitors his/her district on a daily basis. Sites are also inspected at the request of another department or in response to complaints. The Inspection Services Division created and implemented a special correction notice that is issued when corrections pertaining to storm water pollution prevention are needed serving to notify the contractor that improvements must be made immediately. For more egregious or repeat issues, inspectors have been trained to issue re-inspection notices, which effectively stops work on the site until the corrections are made and the site is re-inspected.

During FY 2008, 8,819 building permits were active, i.e. issued and/or with active construction. All permits are either of medium or low priority. The Inspection Services Division conducted inspections at 7,033 of these active building sites. In total, the Inspection Services Division conducted over 43,500 inspections throughout the reporting period.

Appendix G lists all of the building permit construction projects active during the reporting period and the following corresponding information on a project by project basis:

- City Permit Number
- Project Title
- # of weeks active in the Rainy Season
- # of inspections in Rainy Season
- # inspections in Dry Season

- Total # of inspections for the site during the reporting period

3.4.6 Construction Enforcement

Departments will generally coordinate with the contractor through the RE to correct any storm water issues or potential violations. If issues are not resolved and violations occur, stop work orders are generally issued, and work is halted until the site is brought into compliance with storm water regulations. In FY 2008, one stop work order was issued by Field Engineering Division and 11 were issued by Inspection Services Division at construction sites. The stop work orders are listed in the following table.

Table 3-2. Stop Work Orders Issued by ECP Field Engineering and DSD-IS Divisions.

Project Name	Date Issued
2534 State St	1/18/2008
3558 Jemez	1/15/2008
6621 Avenida Mirola	1/17/2008
3016 Caminito Niguel	1/3/2008
1702 National	2/28/08
3906 Caminito Cassis	3/19/2008
5474 Barkla St	3/12/2008
5474 Barkla St	3/10/2008
2867 Arcola	3/4/2008
10757 Cherry Hill Dr	2/20/2008
4616 Tula Ct	2/8/2008
5036 68th St	2/5/2008

Other enforcement actions were taken throughout the reporting period; however, they were not tracked electronically and are nearly impossible to report upon. The City is currently developing electronic tracking systems that will allow other enforcement actions to be tallied and summarized for reporting purposes.

In addition to the enforcement actions taken by the Field Engineering and Inspection Services divisions, the Pollution Prevention Division operates the Storm Water Pollution Prevention Hotline (619-235-1000) as well as other means of communication (e.g., website, main office line, and fax); thereby, encouraging the reporting of illegal discharges to the storm water conveyance system from locations within the City, including construction sites. 98 investigations were conducted at sites of construction activities in FY 2008. As a result of the investigations conducted by the Pollution Prevention Division's Investigations and Enforcements Section, the following enforcement actions were taken.

Table 3-3. FY 2008 Summary of Code Compliance Enforcement Actions for Sites of Construction Activities

Construction Enforcement Actions Taken	Number Issued in FY 2008
Civil Penalty	26
NOV	41
Citation	14

The other construction site investigations conducted resulted in 3 educational letters, 8 educational information distribution, 2 where there was no evidence found, 3 where there was no action taken, and 1 that was found to be exempt.

3.4.7 Construction Education

Inspection Services Division conducted two informational seminars for the general public during FY 2008 to distribute storm water information and receive public input. An estimated 100 individuals attended the seminars.

4 MUNICIPAL

4.1 INTRODUCTION

The City implemented and assessed its JURMP for municipal facilities and activities in FY 2008. This section identifies the actions the City took during the reporting period to meet program objectives and Municipal Permit requirements. Due to the City's organizational size and complexity, this section is organized into logical subsections according to City functions and services. This introduction section includes summaries of the activities conducted that are general in nature while the remainder of the section discusses specific activities conducted by various departments. Table 4-1 provides a summary of the City Function and respective section number for ease of locating information in this section of the Annual Report.

Table 4-1: City Function/Service by Municipal Section Number

City Function/Service	Section Number
Airports	4.2
Buildings/Parking/Landscaping	4.3
City-Owned Leased Properties	4.4
Household Hazardous Waste	4.5
Non-Emergency Fire-Rescue Activities	4.6
Non-Emergency Police Activities	4.7
Metropolitan Wastewater Collection	4.8
Metropolitan Wastewater Treatment and Maintenance	4.9
Recreational Lands and Facilities	4.10
Solid Waste Management	4.11
Special Events	4.12
Stadium	4.13
Streets/Storm Drain Conveyance System	4.14
Vehicle Maintenance/Operations Yard	4.15
Water Systems	4.16

Source Characterization

The City submitted an inventory of municipal facilities with the 2008 JURMP in March 2008. The 2008 JURMP inventory was developed utilizing San Diego Geographic Information Source (SanGIS) information. Since the 2008 JURMP submittal, each Municipal Department/Division has submitted an updated inventory, which provides a more accurate accounting of the City's municipal inventory. The City will continue to utilize this inventory and will update it as applicable. Appendix H of this report contains the updated inventory and prioritization for municipal facilities.

The Park and Recreation Department's updated facilities inventory and prioritization for FY 2008 is included as Appendix H of this report. It is worth noting that the structure of the Park and Recreation Department inventory will change beginning in 2009. Rather than listing each facility separately, the Park and Recreation Department will only list main sites in its inventory. A main site may include several facilities or structures. This will not only provide a more accurate inventory, but will also facilitate a more accurate accounting of facility inspections.

Municipal Inspections

All municipal facility inspections conducted during FY 2008 addressed all of the required inspection steps to determine full compliance by utilizing the City's municipal inspection form. The inspection forms were completed at each site that received an inspection as well as applicable special events in order to confirm that the designated BMPs were implemented. Departmental Municipal Inspection Forms are included as Appendix I.

Best Management Practices (BMPs) Requirements

All Departmental minimum BMPs and activity-specific BMPs were modified in FY 2008 through the update of the City's JURMP. All departments/divisions ensured that all City staff implemented the appropriate combination of minimum BMPs and activity-specific BMPs in accordance with the City's 2002 JURMP prior to March 24th, 2008 and the City's 2008 JURMP after March 24th, 2008 to prevent pollutant discharges to the storm drain system during FY 2008. Furthermore, all designated BMPs for pesticides, herbicides, and fertilizers were required and implemented in applicable municipal areas and activities in FY 2008. Any additional department/division BMP information is included in the respective department/division's subsections below.

Additional Controls for Municipal Areas and Activities

Order R9-2007-0001 requires that the City implement additional BMPs at municipal facilities that discharge to, or are tributary to, a 303(d) listed water body, lagoon, or water body on environmentally sensitive lands (all City faculties are subject to this requirement). To meet this additional BMP requirement, each City facility will conduct a second facility inspection.

This additional control did not take affect until March 24, 2008 when the City submitted its 2008 JURMP. According to the City's 2008 JURMP, the first inspection is recommended to occur in September (before the beginning of the rainy season), and the second inspection is recommended to occur between January and April (during the rainy season). While operating under the City's 2002 JURMP the City was required to implement one annual facility inspection. Some Departments/Divisions were able to implement two storm water facility inspections during FY 2008, and all Departments/Divisions will implement the new inspection frequencies in FY 2009. If Departments/Divisions conducted two facility inspections it is noted in the respective BMP Requirements subsection.

Pollutant Discharge Notification

Metropolitan Wastewater Division (MWWD) and the Water Department were the only Departments/Divisions that had significant discharges from facilities that required a pollutant discharge notification to the RWQCB during FY 2008. During the reporting period, MWWD responded to 69 significant discharges from facilities, and the Water Department responded to 61 significant discharges from facilities.

Inspection and Maintenance of Municipal Treatment Control BMPs

During FY 2008, 5 of the 15 public projects listed in the City's Public Treatment Control BMP inventory (see Appendix D) were visited for treatment control BMP inspections. The inventory contains a total of 31 treatment control BMPs at the 15 projects sites: 3 downspout filters, 4 infiltration basins or trenches, 9 Hydrodynamic Separation Systems, 3 grass swales or grass strips, 4 unknowns, 1 wetland vegetation swale, 6 drainage inserts, and one where no BMPs were entered in the database. 5 treatment control BMPs were inspected during the reporting period to verify proper operation.

In addition to City conducted inspections, the Municipal Permit requires annual verification of operation and maintenance of all municipal treatment control BMPs. Annual verification must be provided by the responsible City department for treatment control BMP maintenance and must be obtained by the Pollution Prevention Division prior to the start of the rainy season (October 1st). Since the new City's 2008 JURMP did not go into effect until March 2008, towards the end of the rainy season, the City did not require annual maintenance verification of treatment control BMP maintenance prior to the 2007-2008 rainy season. The City did, however, begin the process of obtaining annual BMP maintenance verifications for FY 2009.

A BMP maintenance verification form, FAQ sheet, and introductory letter were developed in 2007-2008 (see Appendix E for an example). BMP maintenance verification forms were emailed to all the responsible departments in early September by the Pollution Prevention Division. As maintenance verification forms are returned to the Pollution Prevention Division, results will be documented in the City's BMP Database and summarized in the next annual report.

Education and Training

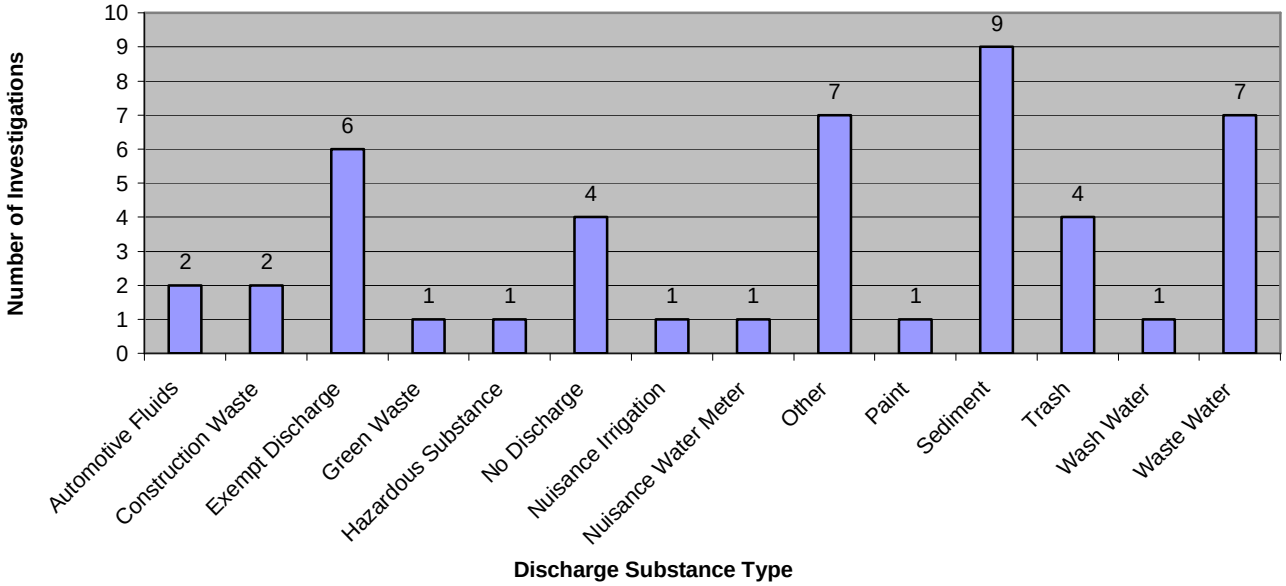
For information on the FY 2008 departmental trainings and various public education and outreach activities conducted by individual departments/divisions refer to Section 8, Education, of this report.

Enforcement

The Pollution Prevention Division's Investigation and Enforcement Section enforces the City's *Storm Water Management and Discharge Control Ordinance* (§43.03 of the Municipal Code) Citywide, including municipal facilities and activities. The Pollution Prevention Division took measures to ensure that all municipal facilities were in compliance with the requirements of the applicable Municipal Permit, the City's municipal code, and applicable JURMP during FY 2008.

In FY 2008, Pollution Prevention Division Code Compliance Officers conducted approximately 47 investigations of potential discharges at municipal facilities or activities (Appendix Q). Investigations are tracked by substance discharged, and Figure 4-1 shows the FY 2008 municipal investigations by discharge type.

Figure 4-1
FY 2008 Municipal Code Compliance Investigation by Type



As a result of the investigations conducted by the Pollution Prevention Division's Investigations and Enforcement Section, Code Compliance Officers issued 16 NOVs and 1 citation. The other investigations conducted resulted four educational information distribution, thirteen referrals to other departments, one where there was no evidence found, nine where there was no action taken, and three that were found to be exempt. Investigations where no responsible party could be identified resulted in a "no action taken" classification, and the discharge was abated and cleaned up by the City. Furthermore, code enforcement staff utilized educational handouts or letters as an enforcement mechanism when proof of an alleged discharge cannot be found or when the responsible party cannot be determined after a thorough investigation.

4.2 AIRPORTS

4.2.1 Background

This section is applicable to Airports Division that operates Brown Field, Montgomery Field and leased non-aviation properties associated with the division. Responsibilities of the Airport Division are outlined in Section 6.2 of the City's 2008 JURMP. Furthermore, operations at the two general aviation airports, Brown Field and Montgomery Field, are conducted in compliance with Statewide General Industrial Permit requirements and according to the storm water program described in the facilities' SWPPPs, and Section 6.2, *Airports*, of the City's 2008 JURMP.

4.2.2 Best Management Practices Requirements

Numerous industrial tenants and activities comprise airport operations. Therefore, in FY 2008, the City continued to rely on storm water representatives at each airport to work with tenant managers and owners to ensure storm water requirements are implemented at all times. Representatives also worked with vendors and the Environmental Services Department (ESD)

to ensure that hazardous materials, such as fuel/oil, batteries, and cleaning solvents, were stored and used appropriately and that hazardous wastes were disposed of properly.

4.2.3 Program Implementation

Facility Inspections and Improvements
During FY 2008, Montgomery Field and Brown Field airports were inspected and no deficiencies were noted during the inspections (Appendix I).

4.3 BUILDINGS/PARKING/LANDSCAPING

4.3.1 Background

This section is primarily applicable to the General Services Department's Facilities Division, Purchasing and Contracting Department, Library Department, Office of the City Treasurers, Homeless Services Division of the City Planning and Community Investment Department, and the Customer Services Department. This section is secondarily applicable to all City departments that operate and maintain City building, parking lots, or landscaping (except Park and Recreation Department which is addressed separately). The City currently owns over fourteen hundred buildings, parking lots, parking structures, and landscaped areas that are located in areas potentially exposed to storm water.

4.3.2 Best Management Practices Requirements

During FY 2008, the Purchasing and Contracting Department ensured that as operations and maintenance contracts were initiated or renewed, references to the Storm Water Ordinance and the most current municipal minimum BMP requirements (Appendix IX, "*Municipal Operations and Maintenance Contract Language"* of the City's 2008 JURMP) were written into the contracts. The Purchasing and Contracting Department also ensured that any updated minimum BMPs were sent to the Pollution Prevention Division before including the changes in the contracts and renewals.

As part of the BMP implementation efforts City Departments/Divisions conducted storm drain inspections and cleaning of their respective facilities, and as a result there was a total of 2,770 lbs (1.4 tons) of debris removed from the storm drain system. City Departments/Divisions also conducted parking lot sweeping of their respective facilities and as a result removed 2,691,389 lbs. (1,346 tons) of debris.

Table 4-2: FY 2008 Storm Drain System Inspection and Cleaning by Department/Division

Department / Division	Amount removed (lbs)
Airports	None
ESD	245
Fire	39
Police	151
Stadium	2195
Fleet Services	140
Total	**2,770**

Table 4-3: FY 2008 Parking Lot Sweeping Information by Department/Division

Department/Division	Amount Removed (lbs.)
Airports	193,000
ESD	66,140
Fire	85
Library	776
Parking Meters	50
Police	18
MWWD	620
Stadium	2,400,000
Park and Recreation	13,200
Street Division	16,000
Fleet Services	1,500
Total	**2,691,389**

4.3.3 Program Implementation

Facility Inspections and Improvements

The Purchasing and Contracting Department and Office of the City Treasurers are not responsible for the inspection of their facilities. During FY 2008 the City's Community Service Centers were inspected once, and 33 of the 37 City Libraries were inspected (see Appendix I for completed inspection forms). Libraries were newly added to the municipal inventory as of March 24, 2008 under the City's 2008 JURMP, and staff worked towards fully implementing the inspection program during the reporting period. Similarly, Homeless Services Division of the City Planning and Community Investment Department was also newly added to the municipal inventory in the City's 2008 JURMP. As such, facility inspections were not conducted in FY 2008. The two facilities have contract staff that the City is currently coordinating with to provide adequate training and make staff aware of the requirements for the facilities. Facility inspections will be conducted in FY 2009 and will be included in the City's FY 2009 JURMP Annual Report.

During FY 2008, four Facilities Division buildings (out of the City's approximately 740 facilities) were not formally inspected for storm water compliance. However, good housekeeping and BMPs that have been incorporated into daily operations were in place to ensure that the facilities are adequately protected against pollutant discharges. To ensure facilities are formally inspected in the future, the buildings will be inspected twice during FY 2009 and future years in accordance with the City's 2008 JURMP.

In addition, the Pollution Prevention Division sent out a memorandum to all Departments/Division in September 2008 reminding staff of the inspection requirements for municipal facilities. Pollution Prevention Division staff will also be conducting walk-along inspections with the Departments/Divisions and will continue to now meet with the departments on a more frequent basis.

4.4 CITY-OWNED LEASED PROPERTIES

4.4.1 Background

This section is applicable to the Real Estate Assets Department (READ), which is responsible for leasing and/or managing more that 550 City-owned properties.

4.4.2 Best Management Practices Requirements

BMPs for Residential or Industrial/Commercial Leases – During residential or industrial/commercial lease establishment, renewal, or amendment, READ staff ensured that the BMPs noted in JURMP sections 6.4.3.1.1 and 6.4.3.1.2 respectively were included in the lease contract or provided as an exhibit during FY 2008.

4.4.3 Program Implementation

Facility Inspections and Improvements
READ manages an array of City-owned leased properties with commercial, industrial or residential uses operating on-site. Although READ manages these leases, they are classified as commercial, industrial, or residential land uses and are included in the Industrial/Commercial Inventory or high priority residential areas inventory, and are treated as such by the City. These leased properties are required to implement BMPs based on the land uses and are inspected under the requirements of the specific program component.

4.5 HOUSEHOLD HAZARDOUS WASTE

4.5.1 Background

This section is applicable to the ESD, which oversees and runs the Household Hazardous Waste (HHW) Program.

4.5.2 Program Implementation

Facility Inspections and Improvements
ESD implements the HHW Program for the City and is responsible for the disposal of residential hazardous waste. ESD operates one permanent HHW Transfer Facility at the Miramar Landfill. The HHW Transfer Facility was inspected during FY 2008 and the inspection form can be referenced in Appendix I. There were no deficiencies noted during the inspection that required follow-up action(s).

During FY 2008 ESD collected 511.7 tons of HHW as shown in Table 4-4 below. By law, HHW cannot be collected through regular refuse collection. When HHW is found, drivers tag the waste. The tag explains the proper disposal method for the HHW and identifies the City's hotline (1-858-694-7000) where more information can be obtained on proper HHW disposal methods.

Table 4-4. FY 2008 Environmental Services HHW Collection Data.

Event/Activity	HHW Collected (tons)
Load Check Program	17.4
Auto Product Recycling Events	43.4
HHW Transfer Facility	444.2
Door-to-Door Collection	6.7
Total HHW:	**511.7**

4.6 NON-EMERGENCY FIRE-RESCUE ACTIVITIES

4.6.1 Background

This section is applicable to the Fire-Rescue Department's non-emergency fire-rescue activities. See Section 6.6 of the City's 2008 JURMP for more detailed information on the Fire Department's non-emergency fire-rescue activities.

4.6.2 Program Implementation

Facility Inspections and Improvements

The City's Fire-Rescue Department maintains 56 facilities and all of these facilities were inspected during FY 2008. For more information on the inspections refer to the Fire-Rescue Departments completed *Municipal Inspection Forms* provided in Appendix I. There were some issues noted during the inspection of Fire facilities. The issues along with the status are summarized in Table 4-5 below.

Table 4-5: FY 2008 Fire Department Inspection Issues and Status

Inspection Issue	Status
Stencil storm drains	In progress - trying to obtain a stencil to mark the storm drains
Order drip pans	Completed - drip pans were ordered and distributed to the appropriate sites
Order spill containment materials and clean-up kits	Completed - materials and kits were ordered and distributed to the appropriate sites
Order flammable materials storage locker	In progress – determining volume needed and will be ordering appropriate storage

4.7 NON-EMERGENCY POLICE ACTIVITIES

4.7.1 Background

This section is applicable to the Police Department's non-emergency activities. See Section 6.7 of the City's 2008 JURMP for more detailed information on the Police Department's non-emergency activities.

4.7.2 Program Implementation

Facility Inspections and Improvements

The City's Police Department maintains 14 facilities, which consist of a police headquarters, police stations and garages, a horse stable, pistol range, and a canine facility. All Police Department facilities were inspected once during FY 2008. For more information on the inspections, refer to the Police Departments *Municipal Inspection Forms* provided in Appendix I. There were some issues noted during the inspections. A summary of the issues and status are included in Table 4-6 below.

Table 4-6: FY 2008 Police Department Inspection Issues and Status

Inspection Issue	Status
Clear space to provide cover for the materials storage area	Completed – Command vans were moved and materials storage area was covered
Clean leaves from parking lot	Completed – cleaned lot of debris

4.8 METROPOLITAN WASTEWATER COLLECTION

4.8.1 Background

This section is applicable to the Metropolitan Wastewater Department (MWWD) Collection Division which, among other tasks, provides ongoing preventive cleaning, maintenance, and repair of the Municipal Sewage Collection System, including emergency removal of sewer line stoppages, equipment overhaul and repair, on-site facility inspections, and maintenance of the structural integrity of sewer mains and manholes in the collection system.

4.8.2 Program Implementation

Facility Inspections and Improvements
MWWD is responsible for six facilities covered under the wastewater collection program component. During FY 2008 MWWD staff conducted an inspection at each of these facilities. There were no issues noted during the inspections of the facilities. For more information on the inspections, refer to MWWD's inspection forms in Appendix I.

MWWD is responsible for the collection and conveyance of wastewater from residences and businesses in the City, serving a 330 square mile area with a population of 1.3 million people. MWWD currently maintains over 3,000 miles of City sewer main line with over 250,000 connections. During FY 2008, the department conducted field inspections and televised sewer lines to monitor the condition of sewer lines, which can reveal blockages from debris to roots to grease and show pipeline cracks, breaks, or deterioration. Through proactive maintenance, spills or leaks to the storm drain system were minimized.

In FY 2008 MWWD helped to reduce the number of sewer spills and protect water quality by inspecting or televising 86.3 miles of sewer line, repairing or performing maintenance on 0.79 miles of sewer line, and cleaning 1,795 miles of sewer lines. These efforts helped to prevent and eliminate sewer spills and the potential for infiltration to the storm drain system in FY 2008. Further discussion on sewer spills will be included in the City's Illicit Discharge Detection and Elimination Section submitted December 15, 2008.

MWWD also continues to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and businesses on the proper disposal alternative for fats, oils and grease. Information on this program can be found in Section 5, Industrial and Commercial, of this report.

4.9 METROPOLITAN WASTEWATER TREATMENT AND MAINTENANCE

4.9.1 Background

This section is applicable to the MWWD Treatment and Maintenance Division, which is responsible for the conveyance, treatment and disposal of wastewater and its by-products.

4.9.2 Program Implementation

Facility Inspections and Improvements
MWWD is responsible for fourteen facilities under the wastewater treatment and maintenance program component, including wastewater treatment plants, office buildings and pump stations.

During FY 2008 MWWD staff conducted an inspection at each of the fourteen facilities. For more information on the inspections, refer to MWWD's inspection forms in Appendix I.

There were some issues noted during the inspections, and a summary of the issues and status are included in Table 4-7 below.

Table 4-7: FY 2008 MWWD Inspection Issues and Status

Facility	Inspection Issue	Status
Metro Biosolids Center	All of the site's 22 storm drains and 2 outfall structures need to be either stenciled or re-stenciled	Completed
Metro Biosolids Center	Some of the site's storm drain grates need to be cleared of silt, twigs, leaves, and/or debris	Completed
Metro Biosolids Center	Waterproof tarps or covers need to be used on all roll off bins that are not located under the canopy. Please take special note of the empty bins located in the parking lot adjacent to Area 94	To be completed prior to October 1st
Metro Biosolids Center	Storm drain catch basins need to be cleaned on an annual basis prior to Oct. 1 of every year	To be completed prior to October 1st
Pump Station #1	Two storm drains need to be stenciled	Completed
Pump Station #1	One storm drain catch basin needs to be cleaned on an annual basis prior to Oct. 1 every year	Completed
Pump Station #2	Two drain catch basins need to be cleaned on an annual basis prior to Oct. 1 every year	Completed
Point Loma Wastewater Treatment Plant	Storm drain inlets need to be stenciled	Completed
Point Loma Wastewater Treatment Plant	Trash cans and dumpsters need to be covered during rain events	To be completed prior to October 1st
North City Water Reclamation Plant	Roll off bins and trash cans need covers	Completed
South Bay Water Reclamation Plant	Storm drain inlets need stenciling	Awaiting tiles – may have to stencil
Pump Station 65	Storm drain inlets need stenciling	Awaiting tiles – may have to stencil
Grove Avenue Pump Station	Storm drain inlets need stenciling	Completed
MOC	MOC II area - ~12' storm drain on the south side of the building needs a metal grate or felt installed to prevent debris from entering it. It needs to be stenciled. Needs to be cleaned on an annual basis prior to Oct.	To be completed prior to October 1st

Facility	Inspection Issue	Status
	1 every year	
MOC	MOC II area - A pale red 1965 MOC II area - Impala that is routinely parked adjacent to the storm drain culverts drips excessive oil. Needs a drip pan or other BMP	This auto is no longer parked in the MOC
MOC	MOC II area - Secondary containment associated with the diesel tank needs to be cleaned of dirt and debris	To be completed prior to October 1st
MOC	MOC II area - Parking lot needs general sweeping	Completed
MOC	MOC III area - Both lids to dumpster in the southwest corner were open	Corrected
MOC	MOC V area - Two channels on the west side of street need to be swept and stenciled	Completed
MOC	MOC V area - Swaddles at both storm drain channels need to be replaced	Completed
MOC	MOC V area - Large, fresh oil puddle in the parking lots needs attention	Completed
MOC	MOC V area - South side of parking lot needs general housekeeping attention	Completed
MOC	MOC VI area - Both dumpster lids were open; it was overflowing with household trash	Completed
MOC	MOC VI area - Trash and debris (uncovered sand piles, broken pallets, etc) are surrounding the dumpster. This area needs general housekeeping attention	Completed
MOC	MOC VI area - Storm drain channel needs to be swept and stenciled.	Completed
MOC	MOC VI – area - The parking lot needs general sweeping	Completed
MOC	MOC VII area - The entire yard needs considerable general housekeeping attention. It has significant letter, junk, abandoned chemicals, spray paint cans, metal parts, gas can ropes, etc.	Completed
MOC	MOC VII area - Numerous pools of hydraulic fluid and oil leaks need to be cleaned	Completed
MOC	MOC VII area - An oily dirt pile under the portable wenches	Completed

Facility	Inspection Issue	Status
	needs to be removed	
MOC	MOC VII area - The entire lot needs sweeping and cleaning	Completed
MOC	MOC VIII area - Parking lot needs sweeping	Completed
MOC	MOC IX area - Uncovered, broken sand bags are on a pallet on the side of the building need to be covered or removed	Addressed
EMTS Laboratory	Parking lot and gutters need sweeping	Completed
EMTS Laboratory	One storm drain needs stenciling	Completed
EMTS Laboratory	All storm drains and catch basisns need to be cleaned on an annual basis prior to Oct. 1 every year	To be completed prior to October 1st
EMTS Laboratory	All 7 storm drains need metal grates or felt to prevent debris from entering the storm drain	Completed
EMTS Laboratory	It appears that EMTS lab staff washes equipment behind the dumpsters and allows the water to enter the storm drain	Addressed with staff
EMTS Laboratory	Small drain needs cleaning	Completed
EMTS Laboratory	One broken sprinkler head is causing over-watering; it is located at the SE corner of the building by the back doors	Addressed

4.10 RECREATIONAL LANDS AND FACILITIES

4.10.1 Background

This section is applicable to the City's Park and Recreation Department management and employees. See Section 6.10 of the City's 2008 JURMP for more detailed information on the Park and Recreation Department's activities.

4.10.2 Program Implementation

Facility Inspections and Improvements

The Park and Recreation Department conducted 339 inspections of its facilities during FY 2008 (see Appendix I for inspection forms). There were some issues noted during the inspections, and a summary of the issues and status are included in Table 4-8 below.

Table 4-8: FY 2008 Park and Recreation Inspection Issues and Status

Facility	Inspection Issue	Status
Monroe Clark Middle School	Trash cans uncovered	Covered - Complete
La Jolla	Employee performing the inspection had not had activity-specific Storm Water BMP training.	Training scheduled and completed

Facility	Inspection Issue	Status
Los Peñasquitos Canyon Preserve/Black Mountain Park Ranger Office	Drip pans were not readily available for leaking vehicles	Complete - drip pans were ordered and put in place prior to December 2007
Cadman-495	Trash cans uncovered	Covered - Complete

During FY 2008 the Park and Recreation Department also issued 11,534 special event permits. In accordance with the City's 2008 JURMP, the Park and Recreation Department conducted periodic inspections of two special events: Ski Beach – Mission Bay Park – Triathlon, and EarthFair in Balboa Park. Copies of the inspection information are included in Appendix I.

During FY 2008 the Park and Recreation Department also collected 39,254 tons of debris from the parks, beaches, and bay including collecting over 30 tons of debris during the 2007 July 4th holiday along the shoreline of Mission Bay and Shoreline/Beach Parks.

4.11 SOLID WASTE MANAGEMENT

4.11.1 Background

This section is applicable to the ESD which operates and manages the collection, reduction, and disposal of solid waste within the City.

4.11.2 Best Management Practices Requirements

ESD made changes to the BMPs found in the City's 2008 JURMP, and the changes are included in the JURMP revisions Appendix Y.

4.11.3 Program Implementation

Facility Inspections and Improvements

ESD's facilities include the "Green[1]" Ridgehaven building, one active landfill, inactive landfills, and an operations yard. During the reporting period, activities in compliance with Statewide General Industrial Permit requirements were performed at all active and inactive landfills. Additionally, during FY 2008, all of the inventoried ESD facilities were inspected. All issues noted on the inspection forms have either been resolved or are on a schedule for repair. Copies of the inspection forms can be found in Appendix I of this report.

Active Landfill (West Miramar Landfill)

ESD maintains the siltation basins at the landfill to ensure effectiveness. Material from the basins was collected when necessary and disposed of according to current regulations. Erosion and sediment control measures, including mulch, tackifier, and straw wattles were put in place, where necessary. During FY 2008, ESD pumped over 3,000,000 gallons of silt laden runoff from the siltation basin at the Active Miramar Landfill.

[1] Home to the Environmental Services Department, the Ridgehaven "Green Building" Demonstration Project is one of the nation's most energy efficient dwellings. In 1999, the building received the U.S. Department of Energy and the U.S. Environmental Protection Agency's first Energy Star Label for Buildings. Ridgehaven's energy consumption is 28 percent better than the California Energy Code (2005), and the building uses half the water of a comparable commercial facility. This translates to about $100,000 in annual estimated cost savings. In 2003, the building received photovoltaic panels that produce energy from sunlight.

Inactive Landfills

In FY 2007, erosion and sediment control measures (such as mulch) were put in place, where necessary. During FY 2008 ESD hauled over 62,000 cubic yards of mulch to the sites for erosion control purposes. Furthermore, quarterly inspections were performed at the sites to ensure working condition of BMPs and drainage structures.

Miramar Place Operations Yard

During FY 2008, the ESD picked up 3.1 tons of debris during the yard clean-up at the operations yard.

4.12 SPECIAL EVENTS

4.12.1 Background

This section is applicable to the Office of Special Events, which issues permits for special events as defined by the San Diego Storm Water Management and Discharge Control Ordinance ("Storm Water Ordinance") §22.4.

The Office of Special Events provides a number of event-related services. The primary function is to provide permits for events that occur on public property. Typical events for which the Office of Special Events provides permitting services include runs, walks, triathlons, festivals, and parades. In addition, the Park and Recreation Department, Water Department, and Qualcomm Stadium staff issue special event permits for activities taking place on land managed by these departments and are addressed in sections 4.10, 4.16, and 4.13 respectively of this report. In general, any organized activity involving the use of, or having impact upon, public property, public facilities, parks, beaches, sidewalks, street areas, or the temporary use of private property in a manner that varies from its current land use, requires a special event permit.

Although special events permitted by the City occur on City property, the special event itself is not considered a "municipal facility" or "municipal area" in the municipal inventory under the Municipal Permit.

4.12.2 Best Management Practices Requirements

BMPs identified in section 6.12.3. of the City's 2008 JURMP are the BMPs that the Office of Special Events ensured were included in the special event permit application language during FY 2008.

4.12.3 Program Implementation

Facility Inspections and Improvements

As required by the City's 2008 JURMP, the Office of Special Events conducted periodic inspections (no less than once annually) of each category or type of special event, to ensure that the Special Event Permit Requirements identified in Section 6.12.3.2 of the City's JURMP are effectively being implemented. During FY 2008, the Office of Special Events inspected the 13th Annual Smooth Jazz Gaslamp Festival located on 5th Avenue and G Street in the Gaslamp Quarter of downtown San Diego. There were no deficiencies noted during the inspection. The inspection form, along with pictures of some of the BMPs implemented, are included in Appendix I.

The Office of Special Events also provides informational messages to all special event organizers providing notification of the BMP requirements for a Storm Water Pollution

Prevention Plan and a Trash and Recycling Plan for each event. The Storm Water Pollution Prevention Plan Message and Trash/Recycling Plan Message to Event Organizers are included in Appendix J.

4.13 STADIUM

4.13.1 Background

This section is applicable to the City's Qualcomm Stadium (Stadium) management and employees, and any lessees or vendors who operate at Jack Murphy Field (Qualcomm Stadium and Jack Murphy Field are hereinafter referred to as the Stadium).

4.13.2 Program Implementation

Facility Inspections and Improvements
During FY 2008 the Stadium was inspected once and there were no issues noted during the inspection. For more information on the inspection refer to Appendix I of this report.

In April 2008 the stadium hosted a made-for-TV motorcycle event (ESPN MotoX) which included a portion of the race track located in the parking lot impacting several storm drain inlets. The event also included two additional dirt mini-tracks, for younger riders and the general public, which were located in the parking lot which increased the potential of impacting additional storm drain inlets. Therefore, the production meetings included training for all personnel associated with the event to relay the importance of proper storm drain inlet protection. During the track setup, all impacted inlets were covered and sand-bagged to provide protection from sediment. Once the track set-up was completed, the two dirt mini-tracks were completely surrounded by straw waddle to contain any sediment from moving outside of the confined areas.

4.14 STREETS/STORM DRAIN CONVEYANCE SYSTEM

4.14.1 Background

This section is applicable to the General Services Department, Street Division which owns, operates, and maintains the streets and storm drain systems of San Diego.

4.14.2 Program Implementation

Facility Inspections and Improvements
During FY 2008, the Street Division conducted an inspection of all of their facilities during FY 2008 (Appendix I). A discussion of specific facilities follows:

Catch Basins, Inlets, and Cleanouts
The City has approximately 31,997 inlets, catch basins, and cleanouts. During the reporting period the Street Division inspected 16,009 and cleaned 14,058 inlets, catch basins, and cleanouts. The City's pipelines and inlets are not designed to contain debris and sediment, therefore any pipeline or inlet cleaned during the reporting period exceeded the cleaning criteria[2]. There was approximately 434 tons of debris removed from inlets, catch basins, and cleanouts during the reporting period.

Municipal Separate Storm Sewer System (MS4)

[2] Cleaning criteria – accumulated trash and debris greater than 33% of design capacity

The City has approximately 901 miles of storm drain system. An updated map of the City's storm drain system is included as Appendix K of this report. The Street Division is responsible for the inspection, maintenance, and repair of the MS4 in the public right-of-way and in drainage easements. Since the City's pipelines are designed not to catch any debris, the City does not conduct inspections of the MS4. However, during FY 2008, the Street Division did clean 14,930 feet of pipeline. The amount of material removed cannot be calculated because vactor truck loads (from drain and pipe cleaning) go to a dewatering facility before being hauled to a landfill.

Open Channels
The City has approximately 50 miles of channels. Every channel within the City was inspected twice during FY 2008. The channels were inspected in the fall before the rainy season and once in the spring. During FY 2008, 9.2 miles of channels were cleaned and as a result 236.11 tons of anthropogenic litter was removed.

Street Sweeping
There are approximately 1,378 curb-miles of improved roads, streets, and highways identified as consistently generating the highest volumes of trash and/or debris within the City. There are also approximately 3,854 curb-miles of improved roads, streets, and highways identified as consistently generating moderate and low volumes of trash and/or debris within the City. The moderate and low volume route miles cannot be separated at this time. The sweeping routes and frequencies for high, moderate, and low volumes of trash and debris improved roads, streets, and highways are included as Appendix L. These maps represent the scheduled and actual sweeping frequencies for FY 2008. If a street sweeping machine was broken or staff was unavailable the route was made up within the week in order to maintain the appropriate frequency. Through the implementation of the City's street sweeping program 78,131 curb miles were swept and 6,642 tons of debris was removed within the City.

4.15 VEHICLE MAINTENANCE/OPERATIONS YARD

4.15.1 Background

This section is applicable to the General Services Department, Fleet Services Division (Fleet Services) and all other departments and divisions which perform vehicle maintenance or operate at an operations yard.

4.15.2 Best Management Practices Requirements

As of July 1, 2007 Fleet Services Division no longer conducted vehicle maintenance at the Central Operations location (1970 B Street). Fleet Services Division only conducted storm water related activities around the truck wash and wash rack at that location.

4.15.3 Program Implementation

Facility Inspections and Improvements
Fleet Services conducted two facility inspections of each operation yard the Division is responsible for during FY 2008 (Appendix I). The first inspections were completed in August 2007 and the second inspections were completed in April 2008. Other applicable departments with operation yards inspected each facility once. Please refer to each Department or Divisions individual inspection forms for further information on the inspections.

During FY 2008, Fleet Services Division removed 1,500 lbs of debris from sweeping operations at the Chollas and Rose Canyon Operation Yards, and removed 140 lbs. of debris from the

storm drains for which the Division is responsible (see Section 3.3.3). Fleet Services Division also removed an additional 2,000 lbs of debris from the Division's operation yards during yard clean-ups in FY 2008.

In an effort to minimize the potential impact of vehicle washing on water quality, Fleet Services Division spent approximately $100,000 to upgrade the truck wash at the Rose Canyon Operations Yard in FY 2008. The truck wash was upgraded with a 60 foot concrete ramp at the exit to minimize waste and wash water from running into the storm drain system. As a vehicle exits the truck wash the ramp slopes upward for 40 feet and then slopes downward for 20 feet. The slopes allow water to run off the vehicles and drain back into the truck wash rather than draining toward the storm drain system.

4.16 WATER SYSTEMS

4.16.1 Background

This section is applicable to the Water Department which owns and operates the potable water supply and distribution systems for the citizens of the City.

4.16.2 Program Implementation

Facility Inspections and Improvements

In FY 2008, the Water Department inspected 33 of its facilities, and in accordance with the City's 2008 JURMP, 28 of these facilities received two inspections during the reporting period. All comments and suggestions noted on the monthly inspection forms were reviewed, and corrective actions were taken for each site. Eleven facilities (out of the City's approximately 740 facilities) were not formally inspected for storm water compliance. However, good housekeeping and BMPs that have been incorporated into daily operations were in place to ensure that the facilities are adequately protected against pollutant discharges. To ensure facilities are formally inspected in the future, the buildings will be inspected twice during FY 2009 and future years in accordance with the City's 2008 JURMP.

In addition, the Pollution Prevention Division sent out a memorandum to all Departments/Division in September 2008 reminding staff of the inspection requirements for municipal facilities. Pollution Prevention Division staff will also be conducting walk-along inspections with the Departments/Divisions and will continue to now meet with the departments on a more frequent basis.

During FY 2008, the Water Department also issued 34 special event permits. Conducting periodic inspections of special events is a new requirement included in the City's 2008 JURMP. As such, the Water Department did not conduct any inspections of special events during FY 2008. However, the Water Department will implement this requirement in FY 2009 and will include information in the FY 2009 Annual Report.

The Water Department purchased a BMP truck during the reporting period and built a storage area for the truck at the Chollas Operation Center. The BMP truck carries fiber rolls, sand bags, and shovels. In the event of excessive erosion or sedimentation during a water main break, the Water Department will utilize the truck to ensure that supplies are readily available to protect nearby inlets.

The City's Water Department earned an ISO 14001 Certification after its Water Operations Division successfully implemented the ISO 14001 Environmental Management System (ISO 14001 EMS) program in May 2005. Under this program, the Water Department establishes annual objectives and targets for improvements in environmental performance, and Department employees perform their daily activities with an increased awareness and commitment to water quality protection and pollution prevention. During FY 2008 the Water Department continued to implement ISO 14001 Certification requirements, which included implementation of BMPs during cleaning and construction, responsible material delivery and storage, habitat/water quality protection, hazardous waste management, etc. As a result the Water Department was recertified in May 2008.

5 INDUSTRIAL AND COMMERCIAL

5.1 INTRODUCTION

Principally, the Pollution Prevention Division staff carries out the industrial and commercial section of the City's JURMP. Other departments such as MWWD also conduct storm water inspections during their restaurant inspections to assist the Pollution Prevention Division's efforts. In addition to conducting industrial and commercial inspections, the Code Enforcement staff within the Pollution Prevention Division enforces the City's Storm Water Management and Discharge Control Ordinance ("Storm Water Ordinance") at industrial and commercial facilities. This section describes the FY 2008 accomplishments of the industrial and commercial program elements.

5.2 STATIONARY SOURCES ELEMENT

5.2.1 Background

Each facility within the City's jurisdiction has been inventoried and categorized as either commercial or industrial. Based on the prioritized category, specific BMPs are required, and inspections are conducted. The industrial and commercial facilities that violate the City's JURMP requirements are notified, reported, and enforced as described in the City's JURMP.

5.2.2 Source Characterization

A watershed-based inventory and prioritization of known industrial and commercial facilities within the City's jurisdiction has been updated for FY 2008 (Appendix M). This inventory is based on multiple sources of information including the City's business tax license list, the Statewide General Industrial Storm Water database, the City's Food Elimination Waste Discharge (FEWD) and Industrial Waste Control Program (IWCP) databases, and other sources of information, as appropriate. The current inventory lists 19,335 stationary facilities within the City. Of the inventoried stationary facilities, 275 are high threat to water quality (TTWQ), 5,761 are medium TTWQ, and 8,721 are low TTWQ commercial businesses. There are also 105 high TTWQ, 3,273 medium TTWQ, and 1,205 low TTWQ industrial businesses.

5.2.3 Best Management Practice Requirements

Minimum BMPs required for industrial and commercial facilities within the City based on the type of activity that is being conducted are identified in *Appendix X, "Minimum BMPs for Industrial and Commercial Sites/Sources"*, of the City's 2008 JURMP. City- identified BMPs to be used at facilities that have the potential to discharge directly to Clean Water Act section 303(d) impaired water bodies, coastal lagoons, or water bodies on environmentally sensitive lands have also been incorporated into the list of minimum BMPs included in the City's JURMP. BMP requirements were modified or updated during FY 2008 as a result of updating the JURMP. For more details see Section 7.3.3 of the City's 2008 JURMP.

To ensure facility compliance of these required BMPs and other storm water regulations, the City conducted inspections and investigations of facilities and implemented enforcement actions where appropriate. An important element of the Industrial and Commercial Program is conducting education and outreach efforts to businesses. These program efforts implemented in FY 2008 are further described below.

5.2.4 Program Implementation

5.2.4.1 *Inspection of Industrial and Commercial Facilities*

The City completed industrial and commercial storm water compliance inspections using three methods: the City's IWCP inspection program, the City's FEWD program, and the City's Pollution Prevention Division's inspection program. The IWCP inspections focus on sites that have sanitary sewer pretreatment permits, while the FEWD inspections focus on food service establishments. The FEWD Program regulates restaurants' sewer grease traps to ensure proper function and also reviews disposal procedures for oil and cooking grease. The program aims to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. Through the three programs approximately 21% of the City's commercial and industrial inventory received site visits and/or inspections. Furthermore, over 50% of all stationary sites determined to pose a high threat to water quality (TTWQ) were inspected during FY 2008.

During FY 2008 MWWD IWCP staff performed 50 storm water inspections, while MWWD FEWD staff performed 2,890 storm water inspections. Complete lists of both IWCP and FEWD inspected facilities are included as Appendix N.

Prior to the start of the Pollution Prevention Division's FY 2008 inspections, the City's inventory was prioritized according to a process consistent with the requirements of Order No. R9-2007-0001. This process was designed to assign the highest TTWQ to businesses at which relatively significant BMP implementation deficiencies had been noted. The sites selected for the Pollution Prevention Division's inspections were chosen based on several criteria:

- To satisfy the requirements of the City's 2002 JURMP;
- All industrial sites covered under the Statewide General Industrial Permit except those inspected in FY 2007 and found to be in compliance were selected;
- All high TTWQ industrial and commercial businesses were selected;
- Additionally, medium TTWQ businesses that had not been inspected in the past were selected. These businesses were mainly selected from categories such as auto repair shops, auto paint and body shops, building material suppliers, contractors deemed likely to have storage yards, and trucking or other transportation operations.

A total of 419 industrial and 815 commercial site visits were made in FY 2008. Of these, 292 industrial and 515 commercial resulted in full inspections, and 130 industrial and 300 commercial were found to have either moved, be duplicates of other businesses, incorrectly classified because the NAICS code on the business license was not accurate, or not in the City's jurisdiction. It is worth noting that four industrial site inspections and one commercial site inspection were resolved via telephone, and therefore, did not constitute a site visit during FY 2008. A complete inspection listing of commercial and industrial inspections for FY 2008 is included as Appendix O. The inspection listing includes the facility name, address, threat to water quality, inspection date, inspection result, and follow-up inspection priority.

All inspections conducted during FY 2008 addressed all of the required inspection steps to determine full compliance by utilizing the City's standard industrial/commercial inspection form as well as applicable attachments to the form (Appendix P). The pollutant discharge potential assessment (PDPA) form and supplemental questionnaire were completed at each site that received a full inspection and the industrial attachment was completed at each industrial site that received a full inspection.

Table 5-1 below provides a summary of the full industrial and commercial inspections conducted by the Pollution Prevention Division, while Table 5-2 provides a summary of the commercial and industrial facility follow-up inspection priority. The City utilized a priority rating system for follow-up inspections. A Priority 1 rating indicates that the facility was referred to the stormwater hotline and was followed-up within 24 hours for the issue(s) noted at the time of the inspection. A Priority 2 follow-up rating indicates that there was a BMP implementation deficiency that warrants a follow-up inspection. Although the City was unable to conduct follow-up inspections of Priority 2 facilities during the reporting period, the City is currently in the process of hiring additional staff to conduct follow-up inspections in a more timely manner. A Priority 3 follow-up rating indicates that there were very minor BMP implementation deficiencies and that corrective actions should be reviewed at the next routine inspection of the facility. It is also important to note that whether or not an industrial facility was in violation of the Industrial Permit had no effect on the priority rating. The priority rating only takes into account whether a facility is in compliance with the City's Municipal Code (only BMP and IC/ID issues). A complete list of industrial facilities that were in violation of the Industrial Permit is included as Appendix Q.

Table 5-1: FY 2008 Summary of Commercial and Industrial Facility Inspections

Facility Type	Number of Full Inspections Conducted
High TTWQ Industrial	78
Medium TTWQ Industrial	209
Low TTWQ Industrial	5
High TTWQ Commercial	109
Medium TTWQ Commercial	367
Low TTWQ Commercial	39
Total	**807**

Table 5-2: FY 2008 Summary of Commercial and Industrial Facility Follow-up Inspection Priority Ratings

Facility Type	Priority 1	Priority 2	Priority 3
High TTWQ Industrial	1	30	47
Medium TTWQ Industrial	0	33	176
Low TTWQ Industrial	0	0	5
High TTWQ Commercial	0	39	70
Medium TTWQ Commercial	2	42	323
Low TTWQ Commercial	0	5	34
Totals	**3**	**149**	**655**

As previously mentioned, the PDPA form was utilized during inspections to collect information for effectiveness assessment and source identification. Ideally, completing the form will provide additional data to help refine the pollutant discharge potentials (PDP) assigned to various source types in the Copermittees' Baseline Long-Term Effectiveness Assessment (BLTEA) (2005). The form is intended to be a semi-quantitative tool to identify which sites are major sources of the principal pollutants of concern for storm water. Inspectors record scores for the following pollutants: sediments, nutrients, aluminum, iron, heavy metals, organic compounds, trash and debris, oxygen demanding, oil and grease, bacteria and viruses, pesticides, and

acid/base. For each of several main categories of pollutants, a numeric PDP on a scale from 0 (not present) to 5 (severe) is assigned. Where applicable, the area(s) of the site requiring more BMPs and that are responsible for potential pollutant discharge (PDP) are identified via check boxes, and the type of BMP necessary is identified. Figure 5-1, on the following page, presents the frequency of scores for each pollutant.

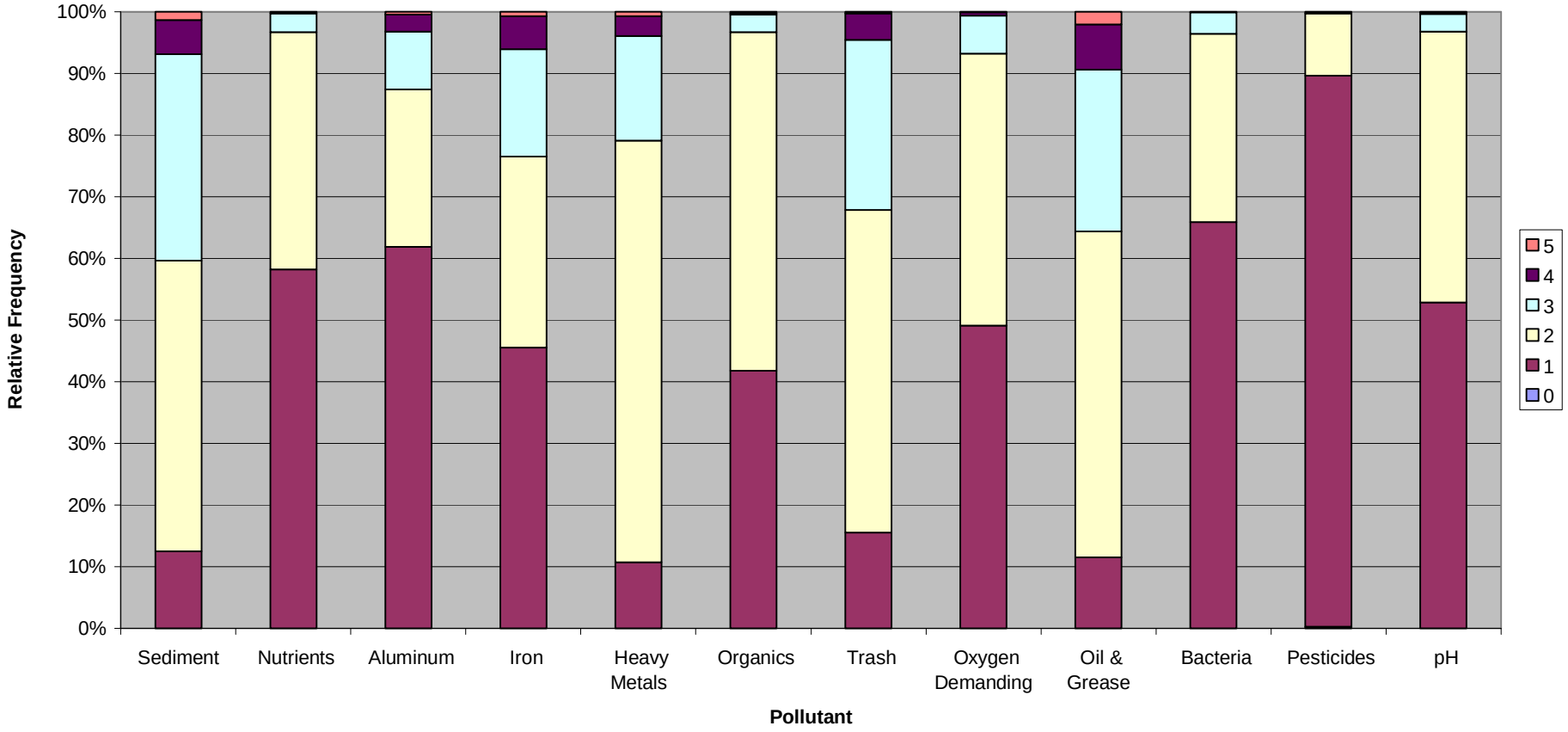
5.2.4.2 *Monitoring of Industrial Sites*

The City's JURMP requires that high TTWQ industrial facilities implement monitoring programs for runoff from their facilities. During FY 2008, there were 63 industrial facilities that were in violation of the Industrial Permit for their monitoring programs. Of the 63 industrial facilities, 24 were high TTWQ industrial facilities. All of the facilities were made aware of the requirement and the list was submitted to the RWQCB. A list of the facilities is included as Appendix Q.

5.2.4.3 *Enforcement of Regulations at Industrial and Commercial Facilities*

Inspections or complaint investigations of industrial and commercial facilities may result in situations requiring enforcement action. Enforcement of storm water regulations are conducted by City staff members with enforcement authority and, when necessary, by legal counsel. The inspectors, in accordance with the existing procedures for recording violations, properly document each observed violation.

Figure 5-1
PDPA Score Frequencies by Pollutant, Jurisdictional Industrial/Commercial Inspections



The City's process for inspection and enforcement of violations ensures that industrial and commercial facility violations are abated. Sites with storm water violations noted during inspections are referred to the Pollution Prevention Division's Investigations and Enforcements Section for follow-up investigation and enforcement. Refer to Appendix R for a table of enforcement actions taken in FY 2008.

The Pollution Prevention Division operates the Storm Water Pollution Prevention Hotline (619-235-1000) as well as other means of communication (e.g., website, main office line, and fax); thereby, encouraging the reporting of illegal discharges to the storm water conveyance system from locations within the City, including commercial facilities. As a result of the hotline, a total 717 investigations were conducted at commercial sites and 28 investigations were conducted at industrial sites in FY 2008.

Investigations are tracked by substance discharged. Categories include: Construction Waste (i.e., cement-like material), Wash Water, Petroleum Hydrocarbons (i.e., transmission fluid, oil, and gasoline), Sewage, Sediment, Effluent on ground (i.e., pool water, water, and ground water), Latex Paint, Waste Water, and Other (i.e., grease, chemicals, trash, green waste, hazardous substance). Figure 5-2, on the following page, shows the FY 2008 industrial and commercial investigations by discharge type.

As a result of the investigations conducted by the Storm Water Division's Investigations and Enforcements Section, the following enforcement actions were taken.

Table 5-3: FY 2008 Summary of Code Compliance Enforcement Actions for Commercial Site Investigations

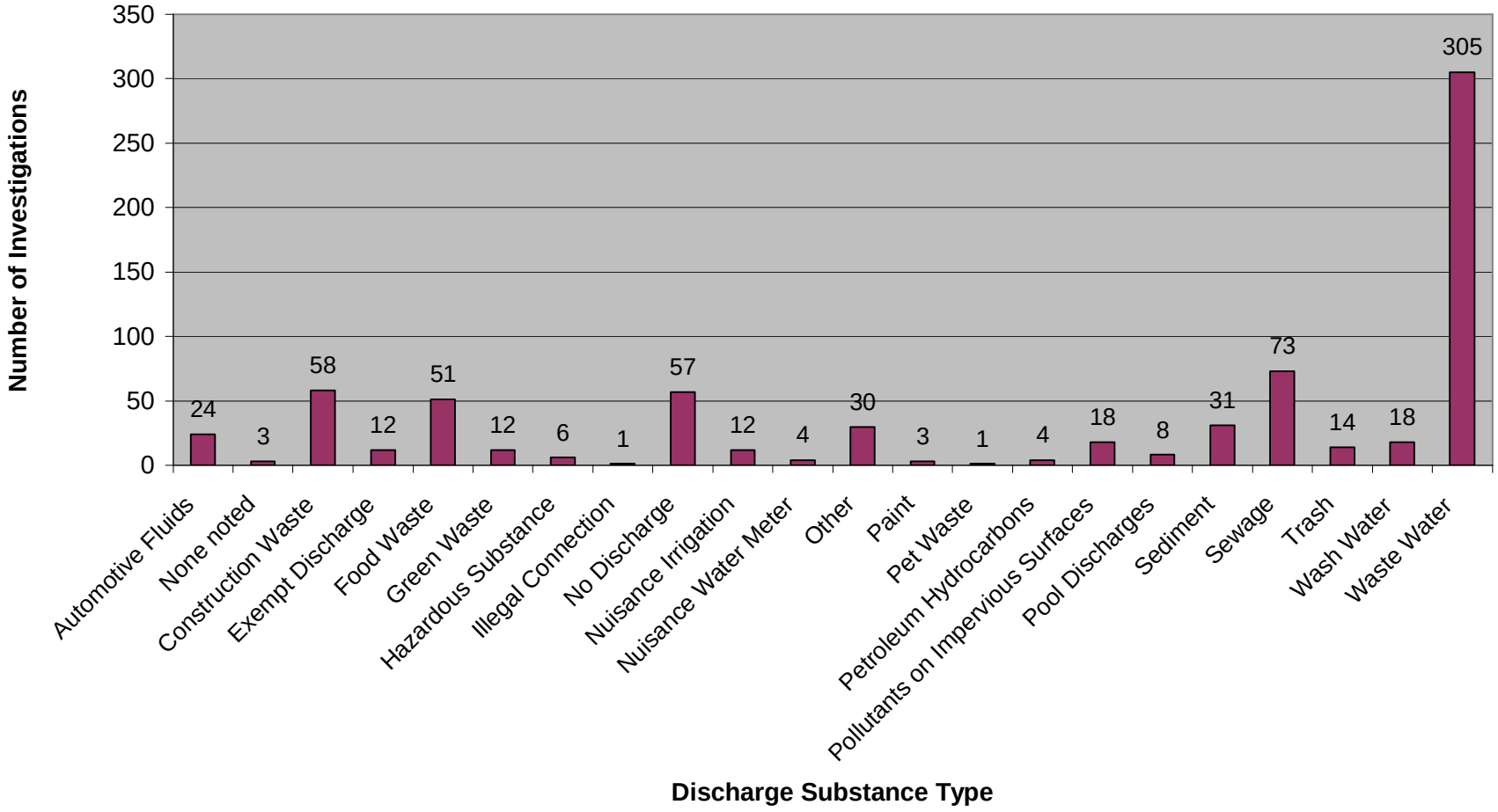
Commercial Enforcement Actions Taken	Number Issued in FY 2008
Civil Penalty	57
NOV	342
Citation	130

Table 5-4: FY 2008 Summary of Code Compliance Enforcement Actions for Industrial Site Investigations

Industrial Enforcement Actions Taken	Number Issued in FY 2008
Civil Penalty	4
NOV	12
Citation	4

The other commercial facility investigations conducted resulted in 55 educational letters, 58 educational information distribution, 14 referrals to other departments, 29 where there was no evidence found, 28 where there was no action taken, and 6 that were found to be exempt. The other industrial facility investigations conducted resulted in 3 educational letters, 1 referral to other departments, 2 where there was no evidence found and 2 where there was no action taken. Investigations where no responsible party could be identified resulted in a "no action taken" classification, and the discharge was abated and cleaned up by the City. Furthermore, code enforcement staff utilized educational handouts or letters as an enforcement mechanism when proof of an alleged discharge cannot be found or when the responsible party cannot be determined after a thorough investigation.

Figure 5-2
FY 2008 Industrial and Commercial Code Compliance Investigation by Type



5.2.4.4 *Education and Outreach to the Public*

During the FY 2008, the Pollution Prevention Division targeted Industrial and Commercial Owners and Operators by distributing educational materials during facility inspections. A summary of the material distributed is included in Table 5-5 below.

Table 5-5: FY 2008 Educational Material Distributed to Industrial and Commercial Sites/Sources

Material	# Distributed
NOI	37
NONA/NEC	51
Industrial Facility Permit Compliance Handout (English)	73
Industrial Facility Permit Compliance Handout (Spanish)	41
Spills Handout (English)	456
Spills Handout (Spanish)	133
Impervious Surfaces Handout (English)	429
Impervious Surfaces Handout (Spanish)	99
Automotive Fluids Handout (English)	377
Automotive Fluids Handout (Spanish)	102
Dumpsters and Loading Dock Areas Handout (English)	257
Dumpsters and Loading Dock Areas Handout (Spanish)	83
Mobile Business Cards	15
Think Blue Poster (English)	7
Think Blue Poster (Spanish)	5
City BMP List (App 10 of the City's JURMP)	4
Copy of City Authorization Letter	11
TOTAL	**2180**

The Pollution Prevention Division also conducted a presentation to the Industrial Environmental Association regarding the inspection program and fire sprinkler discharge during FY 2008. The presentation targeted industrial/commercial target audiences and reached an estimated 50 individuals.

5.3 MOBILE SOURCES ELEMENT

5.3.1 Background

Mobile businesses have been identified as a significant potential source of non-storm water discharges. The very nature of mobile businesses makes the task of achieving compliance with storm water regulations difficult. The City has developed a program to identify mobile businesses that operate within the City, include these businesses in the industrial/commercial inventory, notify them of BMP requirements, inspect them on an as needed basis, and take enforcement actions when necessary.

5.3.2 Source Characterization

The mobile sources inventory is based on the same sources of information utilized for the industrial and commercial stationary inventory as noted above. Of the 19,455 currently inventoried facilities within the City, 110 are mobile businesses. Five are high TTWQ, 90 are

medium TTWQ, and six are low TTWQ commercial mobile businesses. There are also eight medium TTWQ, and one low TTWQ industrial mobile businesses. The FY 2008 updated inventory and prioritization is included in Appendix M of this report.

5.3.3 Best Management Practice Requirements

The City has identified minimum BMPs that are required for all mobile businesses based on the type of activity that is being conducted (see Appendix XI, "Minimum BMPs for Mobile Businesses", of the City's 2008 JURMP). There were no changes to the minimum BMPs required in the City's 2008 JURMP during the FY 2008 reporting period. Mobile businesses will be notified by March 24, 2009 of the City's BMP requirements through distributed materials and during inspections. Any future changes to the BMPs will be reported to the RWQCB.

5.3.4 Program Implementation

This is a new program requirement under the new Municipal Permit. As such, the City is currently working on developing and implementing a mobile business program. Given that this reporting period only covers three months under the new Municipal Permit, the City has made progress on the Mobile Sources Element but the majority of program implementation and updates will be included in the FY 2009 Annual Report after the program has been in effect for a complete fiscal year.

During FY 2008, the City identified 67 mobile businesses which were then added to the mobile business inventory through the commercial and industrial stationary inspections (Appendix M).

5.3.4.1 *Enforcement*

During FY 2008, there were 18 mobile business investigations conducted by Code Enforcement staff. Of the 18 investigations, two businesses were issued civil penalties, four were issued NOVs, five were issued citations, two were provided with letters, and one received educational information. There were five businesses where no action was necessary or there was no evidence of a violation.

5.3.4.2 *Education and Outreach to the Public*

As stated previously, this is a new requirement under the new Municipal Permit, which went into effect on March 24, 2008. The City is currently working on the development and implementation of the education element for mobile businesses and will provide updates on the progress in the FY 2009 JURMP Annual Report. During FY 2008, there were 15 mobile business cards distributed during industrial and commercial inspections as noted in Table 5-4 above.

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6 RESIDENTIAL

6.1 INTRODUCTION

The City continued to implement the Residential component of its JURMP to prevent and reduce pollutants in runoff from residential areas within in the City. FY 2008 program accomplishments are described below.

6.2 SOURCE CHARACTERIZATION

The City's residential inventory was updated during the reporting period as a result of updating the JURMP. For more details regarding the City's residential inventory or prioritization see Appendix VII, "High Priority Residential Areas Inventory", of the City's 2008 JURMP.

6.3 BEST MANAGEMENT PRACTICE REQUIREMENTS

BMPs were modified during FY 2008 as a result of updating the JURMP. For more details see Appendix XII, "Minimum BMPs for Residential Areas and Activities" of the City's 2008 JURMP.

6.4 PROGRAM IMPLEMENTATION

The section describes the steps taken to require, encourage, and verify the implementation of prescribed minimum BMPs for high priority residential activities during the FY 2008.

6.4.1 Outreach for BMPs

Regional Residential Education Program

Order 2007-0001 requires Copermittees to address bacteria, nutrients, sediment, pesticides, and trash. The City changed the focus of its residential education strategy to target the greatest sources for these pollutants of concern in specific areas. The City and Copermittees have these pollutants in common; therefore, a shared mass media campaign will be the most effective and beneficial strategy for all Copermittees in reaching residents across the region. The City and Regional Copermittees will implement a regional "Think Blue" outreach program. "Think Blue" is an effective collaboration because it provides a broader, more universal message and normative behavior reinforcement than individual cities can provide on their own.

The City and the Copermittees are providing *Think Blue* with funding and are currently in the process of developing, placing, and tracking overarching education, outreach, and advertising tools on behalf of the region. More information on the Regional Residential Education Program for FY 2008 will be included in the Regional Urban Runoff Management Plan (RURMP) Annual report submitted to the RWQCB in January 2009.

San Diego County Fair Residential BMP Outreach

The San Diego Regional Storm Water Copermittees sponsored the San Diego County Fair (Fair) in 2008 as an education and outreach activity. The sponsorship was a joint effort between the City's Think Blue program and the regional Copermittees, with each entity contributing approximately half the overall cost. The Fair was selected as a regional event due to its unique ability to potentially reach more than one million San Diegans and convey a strong environmental message. The Residential Sources and Outreach Workgroup (Outreach Workgroup) was responsible for overseeing sponsorship activities with the City and leading the coordination and implementation efforts.

The attendance for the fair was estimated at 1,235,698 persons over the 21 days the event occurred. Sponsorship for the Fair included staffing an outreach booth for 11 days, in which the majority of the jurisdictions provided staffing support. The outreach booth served as the primary method for educating the public about watershed protection and pollution prevention. The Outreach Workgroup elected to promote Integrated Pest Management (IPM) as the primary theme and collaborated on the distribution of IPM materials in both English and Spanish. Individual jurisdictions were invited to distribute their own materials in addition to the IPM materials. The Copermittees received billing as both a Flower & Garden Show sponsor and an Enviro-Fair sponsor.

Think Blue was designated as the brand for the Copermittees' during the event. Signage demarking the symbol included banners, planter box displays, and recycle bin stickers were visible at over 500 locations at the Fair. Media exposure included TV, radio and press releases. The sponsorship was printed in both the Fair program and included on the Fair map. Other promotions included newspaper advertisements, electronic messaging over the Jumbo Tron, website logos and links, and PA system announcements in both English and Spanish.

Think Blue, City of San Diego developed an event survey for the purpose of assessment. Over 1,200 survey cards were completed during the 11 days the booth was staffed. The questions focused on general storm water knowledge and awareness. The results are being tabulated and will be reported in the FY 2009 Annual Report.

Management and Disposal of Used Oil and other HHW

Auto-Part Stores, Do-It-Yourself Oil Collection:

The City continued to educate residents on the proper disposal of used oil and oil filters. One in five adults change their own motor oil. The City's ESD HHW Program continued to conduct the used oil program and support certified oil collection centers during FY 2008. The City conducted site visits to 92 State certified oil collection centers within the City of San Diego. The auto parts stores such as Kragen (CSK Auto, Inc.) and Autozone collected over 95 percent of the oil and oil filters from the do-it-yourself mechanics. During FY 2008, Kragen stores collected approximately 327.3 tons (320 tons of oil and 7.3 tons of oil filters) and Autozone/Chief Auto Parts stores collected 221 tons of oil within the City of San Diego. The tonnage collected annually remains fairly constant and only varies when a store opens or closes.

Retailer Collection of Universal Waste

Beginning February 2006, residents can no longer place universal waste in the trash. New state laws require retailers to offer no charge recycling of cell phones and rechargeable batteries. In addition, CIWMB established reimbursement to collectors and recyclers of specified electronic wastes.

Household Hazardous Waste Collection

As reported in Section 4.5.5.1, ESD collected 511.7 tons of HHW as shown in Table 6-1 below during FY 2008. By law, HHW cannot be collected through regular refuse collection. When HHW is found, drivers tag the waste. The tag explains the proper disposal method for the HHW and the City's hotline (1-858-694-7000) where more information can be obtained on proper HHW disposal methods.

Table 6-1. FY 2008 Environmental Services HHW Collection Data.

Event/Activity	HHW Collected (tons)
Load Check Program	17.4
Auto Product Recycling Events	43.4
HHW Transfer Facility	444.2
Door-to-Door Collection	6.7
Total HHW:	**511.7**

6.4.2 Verification of BMPs

Verification and enforcement of the Minimum BMPs for Residential Areas and Activities occurred at the jurisdictional level. During FY 2008, the Storm Water Hotline (619) 525-1000 was used to report violations of the Storm Water Management and Discharge Ordinance (Storm Water Ordinance), as well as observed violations witnessed by Code Enforcement staff. During FY 2008, Code Enforcement staff conducted 172 investigations at residential locations.

Investigations are tracked by substance discharged. Categories include: Construction Waste (i.e., cement-like material), Wash Water, Petroleum Hydrocarbons (i.e., transmission fluid, oil, and gasoline), Sewage, Sediment, Effluent on ground (i.e., pool water, water, and ground water), Latex Paint, Waste Water, and Other (i.e., grease, chemicals, trash, green waste, hazardous substance). Figure 6-1 on the following page shows the FY 2008 residential investigations by discharge type.

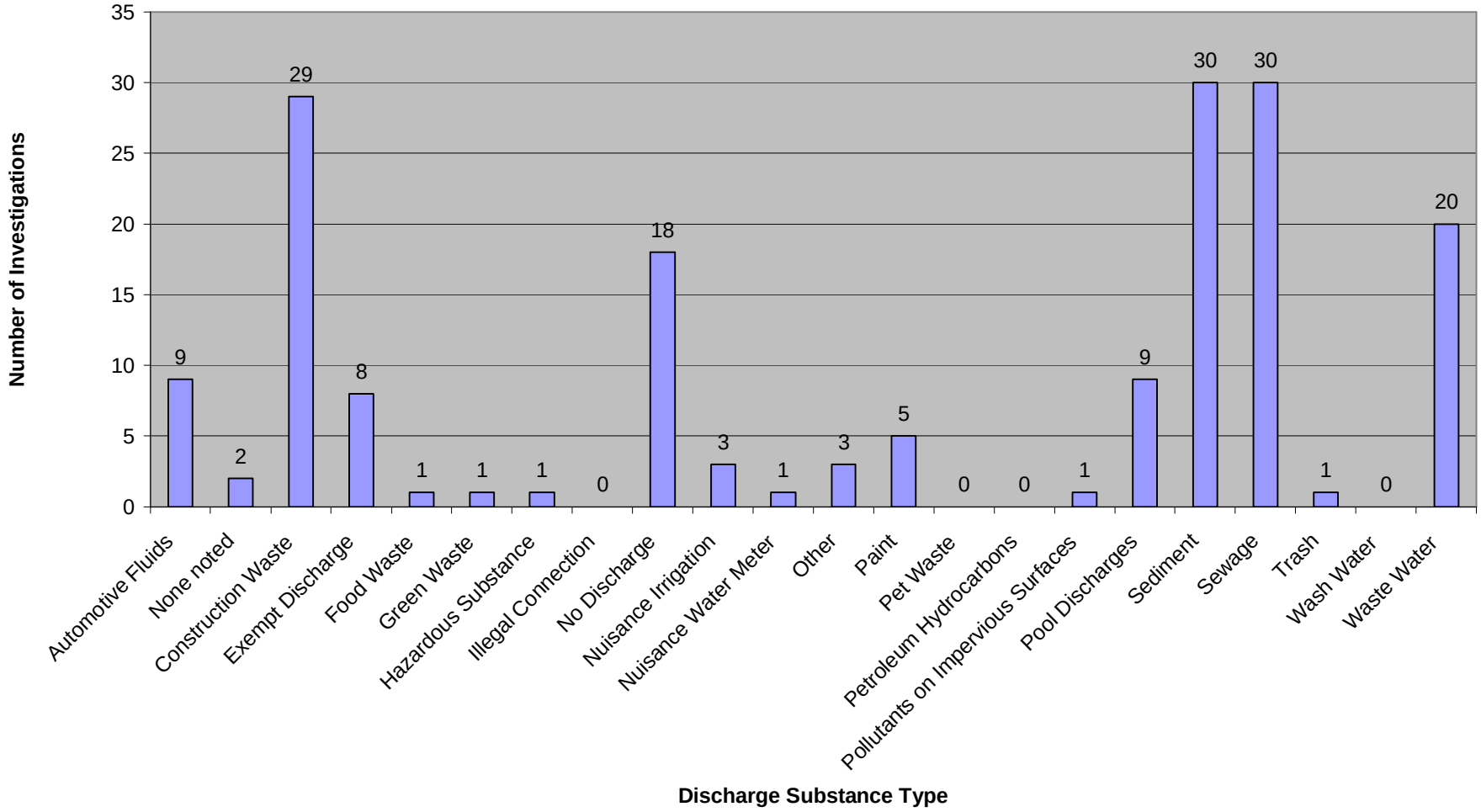
As a result of the investigations conducted by the Pollution Prevention Division's Investigations and Enforcements Section, the following enforcement actions were taken.

Table 6-2: FY 2008 Residential Enforcement Actions Taken

Residential Enforcement Action Taken	Number Issued In FY 2008
NOV	**80**
Administrative Citation	**21**
Civil Penalty	**17**

The other investigations conducted resulted in 13 educational letters, nine educational information distribution, seven referrals to other departments, 13 where there was no evidence found, seven where there was no action taken, and five that were found to be exempt. Investigations where no responsible party could be identified resulted in a "no action taken" classification, and the discharge was abated and cleaned up by the City. Furthermore, code enforcement staff utilized educational handouts or letters as an enforcement mechanism when proof of an alleged discharge cannot be found or when the responsible party cannot be determined after a thorough investigation.

Figure 6-1
FY 2008 Residential Code Compliance Investigation by Type



7 ILLICIT DISCHARGE DETECTION AND ELIMINATION COMPONENT

7.1 INTRODUCTION

Per RWQCB Addendum No. 2 to Order R9-2007-0001, the City will submit this section in its entirety on December 15, 2008.

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8 EDUCATION

8.1 INTRODUCTION

Think Blue is the City's storm water education campaign for both external and internal audiences, and is managed by the Pollution Prevention Division's Education and Outreach Program. The *Think Blue* campaign is a multi-faceted effort which encompasses education, public outreach, storm water pollution prevention advocacy, mass media advertising, and employee training. This section identifies the actions the City took during the reporting period to meet program objectives and Municipal Permit requirements.

8.2 STAFF TRAINING ELEMENT

In general, *Think Blue* continued to be responsible for developing and delivering general training to and promoting awareness of storm water issues among City employees whose primary job assignments may have little or no impact or relation to storm water. Individual departments, particularly those with field crews, which have more opportunity to cause a discharge into the storm drain system, were responsible for training employees in Storm Water BMPs

Training specifics include:

Municipal General Storm Water Training

New Employees

During FY 2008, at the "New Employee Orientation" (NEO) workshops, all newly hired City staff received a basic introduction to storm water issues through a "Storm Water and You" training module created by *Think Blue*. NEO workshops are held monthly, and in FY08, 379 new employees received the training. All staff who attended NEO were given a pre-test and a post-test containing questions relating to storm water and the topics covered in the training. Statistical analyses revealed that the participants had higher scores after completing the storm water training sessions (the average test-taker answered 4-out-of-5 questions correctly on the pre-test and answered 5-out-of-5 correctly on the post-test). Seasonal or temporary staff that do not attend the "New Employee Orientation" workshop received general storm water training as part of their employee orientation from their department.

Existing Employees

During FY 2008, the City continued the process of creating "refresher" training for existing City employees with regular access to a computer every two years through a City-wide training element to be developed by the Pollution Prevention Division. Additionally, research began to examine implementing knowledge assessment through "e-tests" for randomly selected City employees with regular computer access periodically between the mandated "refresher" courses. Finally, the Pollution Prevention Division also worked on the development of a computer based, activity specific training module addressing storm water BMPs for common activities shared by multiple departments. During the reporting period, Pollution Prevention Division staff worked on the development of the computer-based City-wide training element, "e-tests", and the activity-specific training module.

Activity-Specific Storm Water Training

Municipal Development Planning

Select staff members from the ECP Design Division attended a Low Impact Development (LID) training that was sponsored by the American Public Works Association (APWA) in December,

2007. Those staff members then shared the information from that training with their respective sections.

The Pollution Prevention Division also conducted activity-specific training for staff during FY 2008. Stormwater Magazine is distributed to staff monthly and discharge enforcement responsibility flyers were provided to the DSD and Field Engineering Division supervisors during the reporting period. A summary of the other activity-specific trainings are included in Table 8-1.

Table 8-1: FY 2008 Land-Use Planning Activity-Specific Training

Training Module/Item	# of Trainings	# of Staff Trained
NPS Annual Conference	1	3
CASQA Conference	1	1
APWA LID Seminar	1	13
Storm Water Management - 3 day training by Water Resources Learning Center	1	3
Project Management Academy	1	17

Municipal Construction Activities
During FY 2008, seven staff member of the ECP Field Engineering inspection group also attended the December 2007 LID Seminar led by APWA. It is important for the inspection staff to have an understanding of the purpose and functionality of LID BMPs as they are charged with requiring proper construction/installation through their inspections.

DSD Inspection Services Division trained approximately 200 staff by conducting 3 storm water tailgate activity specific trainings during the reporting period.

In addition to the trainings noted above, construction staff received copies of the City's JURMP Chapter 5 covering staff responsibilities.

Annual training prior to the rainy season for construction, building, code enforcement, and grading review staffs, inspectors, and other responsible construction staff is a new requirement under Order R9-2007-0001. The first complete rainy season under Order R9-2007-0001 occurs in FY 2009 and the annual training conducted will be reported in the City's FY 2009 Annual Report.

Municipal Industrial/Commercial Activities
Under Order R9-2007-0001 industrial/commercial staff responsible for conducting storm water compliance inspections and enforcement of industrial and commercial facilities shall receive annual training. The City will fully implement this requirement in FY 2009 and will report the training in the City's FY 2009 Annual Report.

Other Municipal Activities
Departments that performed work activities specifically identified in the Municipal Permit and/or performed work that directly impacted water quality created, executed, and funded activity-specific training sessions for their employees. The trainings introduced work processes, functions, and behaviors that incorporate the Minimum BMPs necessary for staff to prevent illegal discharges into the City's storm drain system. During FY 2008 City Departments/Divisions conducted approximately 200 activity-specific trainings for staff (see Appendix S for more details).

In addition to the trainings noted in Appendix S, the Airports, Streets Division, and ESD also provided additional information to staff. During FY 2008 Airport staff received copies of Chapter 6.2 covering Airport responsibilities, Appendix X covering the Commercial/Industrial minimum BMP requirements, Chapter 9 covering Illicit Discharge Detection and Elimination, and the Chemical Release Reporting Form all from the City's 2008 JURMP. The Street Division provided educational handouts to staff including information regarding vehicle and equipment cleaning, material and delivery storage, material use, and storm water principles. In addition, ESD's Hazardous Materials Management Program also taught 69 hazardous material classes to City employees where a storm water component was covered in each class during the reporting period.

Also during FY 2008, the Fire-Rescue Department Training Division Administration initiated an orientation process for participating agencies conducting fire training at the Harbor Drive Training facility. Client staff is required to sign an agreement indicating that they are informed of the water flow control protocol utilized to ensure that storm drains are protected in the streets. Furthermore, Fire Logistics staff developed a BMP packet consisting of a clear plastic pocket and hanger for easy posting at the Fire-Rescue facilities.

8.3 EDUCATIONAL OUTREACH ELEMENT

This subsection describes the content, form, and frequency of education and outreach efforts for residential, general public, school children, and underserved target communities including high risk behaviors, "allowable" behaviors, mobile sources, and various ethnic and socioeconomic groups. New development, construction target audiences, and industrial/commercial outreach programs are discussed in detail in their individual sections of this report.

8.3.1 Tools for Special Targeted Groups

The City has identified BMP requirements for the following audiences:

- Commercial and Industrial Sites/Sources
- Mobile Businesses
- Residential Areas and Activities
- New Development and Construction owners and operators
- Municipal personnel

These BMP requirements are included in Appendices X, XI, and XII, in Section 3.0, "Development Planning", in Section 4.0, "Construction", and in Sections 6.X in each municipal section of the City's 2008 JURMP. In accordance with the City's 2008 JURMP, BMPs were promoted and presented to the various target audiences listed above through a variety of outreach tools. For information on the education and outreach conducted for Commercial and Industrial Sites/Sources, Mobile Businesses, New Development, and Construction Owners and Operators please refer to Section 5.2.3.4, Section 5.3.4.1, Section 2.4.3.5, and Section 3.4.7 of this Annual Report respectively.

8.3.2 Tools for the General Public

This subsection describes the ways *Think Blue* delivered its messages to the general public along with a description of specific education and outreach activities offered by other City departments or divisions. For example, *Think Blue* messages were conveyed in bill inserts, information racks in various department community service centers, libraries, and the Office of the City Treasurer. Other departments assisted by distributing storm water related messaging through mailings, newsletters, bill messaging, and at special events.

Order R9-2007-0001 requires jurisdictions to conduct education efforts toward several audiences including underserved target audiences, high risk behaviors, and "allowable" behaviors and discharges. During FY 2008 the City began the process of fully implementing an education program addressing this new requirement and will have more information in the FY 2009 JURMP Annual Report. During FY 2008, the City utilized print media to target underserved audiences to inform individuals regarding auto product recycling events as noted in Table 8-6 below. The City will continue to look for more opportunities to reach underserved target audiences.

8.3.2.1 *Advertising*

Well-developed advertising of *Think Blue* Public Service Announcements (PSAs) is a critical part of the Pollution Prevention Division's overall outreach and education efforts. As an example, during FY 2008, *Think Blue* San Diego was recognized with two Emmy Awards at the 34th annual Emmy Awards on June 14, 2008 for the *Think Blue* PSAs entitled "Karma" and "Karma Second Chance".

The Emmy Awards were presented by the Pacific Southwest Chapter of the National Academy of Television Arts and Sciences. The Pacific Southwest region includes San Diego, Bakersfield, Palm Springs, San Luis Obispo, Santa Barbara, and Santa Maria, California and Las Vegas, Nevada. The purpose of the Emmy Awards is to recognize outstanding achievements in television by conferring annual awards of merit.

The "Karma" PSA was conceived and written as part of an educational series, promoting storm water pollution prevention. The first spot, "Karma", humorously illustrates the bad luck that befalls a young businessman after he carelessly litters in the street. Other spots in the series, such as "Karma: Second Chance", rewind the action to avoid the pitfalls of karma, and demonstrate ways in which citizens can help reduce pollution, keeping beaches and bays clean.

More information on the City's PSAs and advertising efforts conducted in FY 2008 are described below.

8.3.2.2 *Think Blue Media Purchase and PSA Airtime*

During FY 2008 the City aired PSAs on both local radio and television stations reaching the English- and Spanish-speaking communities. The advertising partners provided $263,598 of in-kind contributions. Leveraged in-kind airings are provided when time is available in the advertiser's inventory, which is not evenly distributed through the 12 month reporting period. Additionally, as part of the media buy, *Think Blue* received an estimated $45,392 of in-kind contributions through free placement on media websites.

PSAs that aired in FY 2008 are summarized in Table 8-2 below and can be found on the City's *Think Blue* website (http://www.sandiego.gov/thinkblue/videos/index.shtml). The television and radio PSAs aired a total of 2,817 times and made an estimated 7,321,835 impressions. Furthermore, the free placement on media websites resulted in an estimated 42,896,318 impressions during the reporting period.

Table 8-2 – FY 2007 Public Service Announcements

PSA	Media	Language
Roads to Beaches	Television and Radio	English and Spanish
Don't Trash Our Future	Television and Radio	English and Spanish

8.3.2.3 *Print Media*

In FY 2008, the City utilized billboards, mall signs, and transit shelters to promote *Think Blue* and Storm Water Pollution Prevention awareness, which made an estimated 5,206,360 impressions. Copies of the billboard, mall signs, and transit shelters graphics are included as Appendix T, and a summary of locations and durations are included in the tables below.

Table 8-3: Billboard Locations and Durations

Location Description	Start Date	End Date
Navajo Rd. west of Lake Murray Blvd.	3/31/08	4/27/08
University Ave. north of Wilson Ave.	3/31/08	4/27/08
University Ave. south of Herbert St.	3/31/08	4/27/08
Fairmount Ave. north of University Ave.	3/31/08	4/27/08
El Cajon Blvd. east of 52nd St.	3/31/08	4/27/08
Mission Gorge Rd. north of Zion Ave.	3/31/08	4/27/08
Sunset Cliffs and Niagara	3/31/08	4/27/08
Ingraham St. south of La Playa Ave.	3/31/08	4/27/08
Mission Gorge Rd. north of Old Cliffs Rd.	3/31/08	4/27/08
Pacific Highway north of Washington St.	3/31/08	4/27/08
Camino Del Rio St. west of Moore St.	3/31/08	4/27/08
University Ave. south of Highland Ave.	3/31/08	4/27/08
El Cajon Blvd. west of 58th St.	3/31/08	4/27/08
Imperial Ave. north of Merlin Dr.	3/31/08	4/27/08
Winter Gardens Blvd. north of Gardena Rd.	3/31/08	4/27/08
University Ave. south of 42nd St.	5/5/08	6/29/08
University Ave. west of 36th St.	5/5/08	6/29/08
El Cajon Blvd. west of 58th St.	5/5/08	6/29/08
El Cajon Blvd. north of 56th St.	5/5/08	6/29/08
Federal Blvd. north of 47th St.	5/5/08	6/29/08
Zion Ave. east of Mission Gorge Rd.	5/5/08	6/29/08
Garnet Ave east of Haines St.	5/5/08	6/29/08
Balboa Ave. east of Albuquerque St.	5/5/08	6/29/08
Pacific Highway south of Smith St.	5/5/08	6/29/08
Main St. west of Woden St.	5/5/08	6/29/08
G St. north of 15th St.	5/5/08	6/29/08

Table 8-4: Mall Signs Locations and Duration

Location Description	Start Date	End Date
Carmel Mountain Plaza – Mall Kiosks	3/31/08	7/20/08

Table 8-5: Transit Shelters Locations and Duration

Location Description	Start Date	End Date
W. Mission Bay Dr. east of Quivira Road	3/31/08	4/27/08
Linda Vista Road west of Mesa College Drive	3/31/08	4/27/08
Park Blvd. north of University Ave.	3/31/08	4/27/08
4th Avenue west of Hawthorn Street	3/31/08	4/27/08
13th St. west of Imperial Avenue	3/31/08	4/27/08
Ruffin Road west of Clairemont Mesa Blvd.	3/31/08	4/27/08
Genesee Ave. west of Balboa Ave.	3/31/08	4/27/08
Miramar Rd. west of Camino Ruiz	3/31/08	4/27/08
Mira Mesa Blvd. east of Black Mountain Rd.	3/31/08	4/27/08
4th Avenue west of Broadway	3/31/08	4/27/08
Adams Ave. west of Cherokee Ave.	3/31/08	4/27/08
Clairemont Dr. west of Clairemont Mesa Blvd.	3/31/08	4/27/08
El Cajon Blvd. west of 54th St.	3/31/08	4/27/08
5th Ave. east of Ash St.	3/31/08	4/27/08
Navajo Rd. west of Park Ridge Blvd.	3/31/08	4/27/08

The Water Department and ESD's HHW Program also utilized print media during FY 2008. The Water Department had a stormwater related article on Lake Murrary included in the Mission Times Courier which reached approximately 25,000 individuals during the reporting period. ESD's HHW Program utilized print media to provide information to the general public in order to promote HHW auto product recycling events. A summary of the print media public outreach conducted by the HHW program is included in Table 8-6 below.

Table 8-6: FY 2008 ESD HHW Program Education and Outreach to the Public

Outreach Mechanism	Placement	Target Audience[3]	# of times		Estimated # of people targeted
For Auto Product Recycling Events					
Calendar article	***Auto Trader***, monthly magazine	4,5	1. 10/15/07-10/27/07 2. 11/05/05-11/18/07 3. 11/26/07-12/08/07 4. 01/14/08-01/26/08 5. 02/08/08-02/23/08 6. 02/29/08-03/15/08 7. 03/21/08-04/05/08 8. 04/25/08-05/10/08		240,000 (Circulation is 30,000 for each publication)
Calendar article	***San Diego Earth Times***, monthly magazine	4,5	1. 10/15/07-10/27/07 2. 11/05/05-11/18/07 3. 11/26/07-12/08/07 4. 01/14/08-01/26/08 5. 02/08/08-02/23/08 6. 02/29/08-03/15/08 7. 03/21/08-04/05/08 8. 04/25/08-05/10/08		8,000 (Circulation is 1,000 for each publication)
Calendar article	Union Tribune, Car Calendar in weekly ***"Wheels"*** newspaper section and online webpage	4,5	1. 10/06/07 2. 10/13/07 3. 10/20/07 4. 10/27/07 5. 11/3/07 6. 11/10/07 7. 11/17/07 8. 11/24/07 9. 12/01/07 10. 12/08/07 11. 01/12/08 12. 01/19/08 13. 01/26/08 14. 02/02/08 15. 02/09/08	16. 02/16/08 17. 02/21/08 18. 02/23/08 19. 03/01/08 20. 03/08/08 21. 03/15/08 22. 03/22/08 23. 03/29/08 24. 04/01/08 25. 04/05/08 26. 04/12/08 27. 04/19/08 28. 04/26/08 29. 05/03/08 30. 05/10/08	9,172,440 (Circulation is 305,748 for each publication)

[3] 1. Construction Site Owners and Developers; 2. Industrial Owners and Operators; 3. Commercial Owners and Operators; 4. Residential Community, General Public, and School Children; 5. Under-represented audiences in 1-4.

Outreach Mechanism	Placement	Target Audience[3]	# of times	Estimated # of people targeted
Government Access Cable Channel	***City Access Magazine*****,** cable video bulletin	4,5	1. 10/15/07-10/27/07 2. 11/05/05-11/18/07 3. 11/26/07-12/08/07 4. 01/14/08-01/26/08 5. 02/08/08-02/23/08 6. 02/29/08-03/15/08 7. 03/21/08-04/05/08 8. 04/25/08-05/10/08	400,000 (Circulation is 50,000 each publication)
Insert	***PennySaver***, weekly advertising magazine with distribution to residential addresses city-wide	4,5	1. 10/24/07 2. 11/14/07 3. 12/05/07 4. 01/23/08 5. 02/20/08 6. 03/12/08 7. 04/02/08 8. 05/07/08	515,000 (based on circulation)
Insert	***Union Tribune***, daily newspaper	4,5	1. 10/24/07 2. 11/14/07 3. 12/05/07 4. 01/23/08 5. 02/20/08 6. 03/12/08 7. 04/02/08 8. 05/07/08	113,957 (based on circulation)
Insert	***Water Bill*** (monthly)	4,5	1. Fall 2007 2. Spring 2008	275,000
Newspaper Ad (Filipino)	***The Filipino Press***, weekly newspaper	4,5	1. 11/10/07-11/16/07 2. 12/01/07-12/07/07 3. 01/19/08-01/25/08 4. 03/08/08-03/14/08 5. 03/29/08-04/04/08 6. 05/03/08-05/09/08	150,000 (Circulation is 25,000)
Newspaper Ad (Filipino)	***Philippine Mabuhay News***, weekly newspaper	4,5	1. 11/09/07 – 11/15/07 2. 11/30/07 – 12/06/07 3. 01/18/08 – 01/24/08 4. 03/07/08 – 03/13/08 5. 03/28/08 – 04/03/08 6. 05/02/08 – 05/08/08	450,000 (Circulation is 75,000)

Outreach Mechanism	Placement	Target Audience[3]	# of times	Estimated # of people targeted
Newspaper Ad (Spanish)	***El Latino***, weekly newspaper	4,5	1. 10/19/07 – 10/25/07 2. 11/09/07 – 11/15/07 3. 11/30/07 – 12/06/07 4. 01/18/08 – 01/24/08 5. 02/15/08 – 02/21/08 6. 03/07/08 – 03/13/08 7. 03/28/08 – 04/03/08 8. 05/02/08 – 05/08/08	644,000(Circulation is 80,500)
Newspaper Ad (Vietnamese)	***Thoi Moi***, weekly newspaper	4,5	1. 11/09/07 – 11/15/07 2. 11/30/07 – 12/06/07 3. 01/18/08 – 01/24/08 4. 03/07/08 – 03/13/08 5. 03/28/08 – 04/03/08 6. 05/02/08 – 05/08/08	48,000 (Circulation is 8,000)
Newspaper Ad (Vietnamese)	***Tieng Viet***, weekly newspaper	4,5	1. 11/09/07 – 11/15/07 2. 11/30/07 – 12/06/07 3. 03/07/08 – 03/13/08 4. 03/28/08 – 04/03/08 5. 05/02/08 – 05/08/08	25,000 (Circulation 25,000)
News Release	***Local print media***	4,5	1. 10/15/07 – 10/27/07 2. 11/05/07 – 11/18/07 3. 11/26/07 – 12/08/07 4. 01/14/08 – 01/26/08 5. 02/08/08 – 02/23/08 6. 02/29/08 – 03/15/08 7. 03/21/08 – 04/05/08 8. 04/25/08 – 05/10/08	N/A
Elevator Signs – promoting Auto product recycling	***Distributed via City staff -*** Posted in CAB, RHC, and Point Loma Library	4,5	1 month/year at each location	Unknown

8.3.2.4 *Special Events*

Special events offer a wide variety of opportunities for the *Think Blue* program to educate the public about Storm Water Pollution Prevention. The table below summarizes the special events that the City implemented and/or participated in during FY 2008 to educate the general public on storm water pollution prevention and to promote the *Think Blue* program. A description of each event follows Table 8-8. While the City conducted jurisdictional outreach, it is important to note that many of the City's outreach events were watershed focused and as such will be included in the WURMP Annual Reports that the City is a participating Copermittee. This will be a continuing trend as the City's outreach events become more area and watershed specific. Furthermore, as the education program has become more sophisticated, it has been recognized that larger audiences can be reached more effectively by focusing staff and resources on large events, rather than numerous relatively minor community and neighborhood events reaching far fewer people.

Table 8-7: FY 2008 General Public Special Events

Date	Event Type	Event Title	Audience	Estimated Audience #
7/21/07	San Diego Padres Baseball Game – Tony Gwynn Commemorative Poster Giveaway	San Diego Padres - Tribute to Tony Gwynn Weekend	General Public – Padres Attendees	45,000 attendees, and 500,000 viewers
12/7/07	Community Festival – video content and booth onsite	December Nights at Balboa Park	General Public	200,000
3/6/08	Environmental Education Event – booth on site	Cox Conserves – Employee Rally at Cox Communications Copley Campus	General Public – Cox Employees	800
4/18/08	Environmental Education Event – Booth on site	Jack in the Box Earth Fair at Jack in the Box Corporate Office	General Public – Jack in the Box employees	400
4/24/08	City of San Diego Family Event – hosted booth on site	Take your Son or Daughter to Work Day	General Public – City of San Diego Employees and Children	200
5/24/08	Jazz Festival – booth on site	Smooth Jazz 98.1 Gaslamp Festival	General Public – 98.1 Smooth Jazz listeners	10,000
6/22/08	San Diego Padres Baseball Game – PSA on Jumbotron and T-shirt sponsorship	San Diego Padres - Premium Kids Giveaway	General Public – Padres attendees	40,000 attendees, and 200,000 viewers
Total				**996,400**

December Nights: In December of 2007, *Think Blue* sponsored the December Nights program in Balboa Park. Sponsorship of the event included display materials, interactive displays, airing of *Think Blue* PSA on informational screens at Balboa Park, and assistance from Special Events staff. *Think Blue* also created awareness in the area by placing stickers on designated storm drains, creating children-friendly hopscotch stickers, and branding recycling bins with the *Think Blue* logo.

Cox Conserves: Cox Communications invited *Think Blue* to participate in their employee educational fair. *Think Blue* staffed a booth and handed out educational information and promotional items to employees and answered questions regarding storm water pollution.

Jack in the Box Earth Fair: During the month of April, Jack in the Box invited *Think Blue* to participate in their Earth Fair. *Think Blue* staffed a booth and handed out educational information and promotional items to employees and answered questions regarding storm water pollution.

Take Your Son or Daughter to Work Day: The City's Office of Ethics and Integrity set up this event in April aimed towards children attending work with their mother or father. *Think Blue* participated by having a booth and handing out educational materials specifically designed for children.

Jazz Festival: *Think Blue* sponsored the Gaslamp Quarter Jazz Festival event in Downtown San Diego on May 24, 2008 Sponsorship included onsite signage, advertisements, onsite booth to distribute educational materials, branding recycling containers with *Think Blue* logo, *Think Blue* branded storm drain coverings and radio spots promoting the event. Details of the sponsorship are included as Appendix U.

Padres Kid's Giveaway: *Think Blue* sponsored San Diego's Padres baseball team premium giveaway item. On June 22, 2008, children under the age of 14 with a valid ticket received a T-shirt that included the *Think Blue* logo. Also, *Think Blue* was given two 30 second PSA airtime slots which aired on the Jumbotron.

During FY 2008, special event organizers were encouraged to promote the *Think Blue* Program and storm water pollution prevention strategies to the approximately 10,000,00 attendees at public events occurring on City streets or parks during FY 2008. Many event organizers promoted a variety of storm water pollution prevention strategies at their events during the reporting period. The Office of Special Events, provided stormwater related information to 600 special event permit applicants during FY 2008.

Qualcomm Stadium also reached approximately 50,000 individuals by displaying the *Think Blue* message on the marquee at the stadium 20 times during the reporting period. Qualcomm Stadium also had signage to promote the proper disposal of trash and recycling during events at the Stadium and all inlet grates are painted with the “No dumping drains to Ocean” message. There were approximately 900,000 individuals at the Stadium during FY 2008 who may have been influenced by this signage.

San Diego Coastkeeper’s Ocean Gala

The Pollution Prevention Division and the City have participated in and attended San Diego Coastkeeper’s Ocean Gala event since 1999. FY 2008 was the third year *Think Blue* served as a sponsor with a donation of $5,000. *Think Blue* debuted a newly produced PSA entitled “Karma” to the attendees of the Gala.

8.3.2.5 *Web Page*

www.ThinkBlue.org provides a wide variety of storm water related information for residents and businesses. The site provides a number of resources including downloadable program brochures, fact sheets, reports, news, Project SWELL information, and a wealth of other resources. BMP information is available for businesses and industries located in the City and

Minimum BMP Fact Sheets are housed on the City web page for all targeted audiences. In addition, an educational resources link connects users to storm water and watershed education resources available from other institutions. Visitors to the site are also able to view storm water television PSAs. The *Think Blue* website had approximately 80,415 visits during FY2008, averaging 6,701 visits a month. A visit is a series of actions that begins when a visitor views their first page from the server and ends when the visitor leaves the site or remains idle beyond thirty minutes.

Additionally, both MWWD and the Water Department provided a wide variety of information, including stormwater, on their respective websites during FY 2008. MWWD's website was visited by an estimated 300,000 individuals. MWWD provided informational videos on the website that could be accessed by the public, and the website was visited by an estimated 300,000 individuals. The Water Department's website along with the water operations websites were visited by 803,364 individuals during FY 2008.

8.3.2.6 *Speakers Bureau*

The Storm Water / Think Blue Speaker's Bureau program is in development mode. *Think Blue* is currently updating the Pollution Prevention Division's presentation materials in response to the multiple new regulations and the Division's variety of planned programs. As a result, staff did not participate in as many Speakers Bureau's in FY 2008 as in years past. In addition, many staff speaking engagements in FY 2008 were focused on watershed specific issues or projects (such as the ASBS in La Jolla), and are recorded in the FY 2008 WURMP Annual Reports. The City is hoping to have this effort fully implemented by FY 2009 and will report on the speaking engagements it conducts in the FY 2009 JURMP Annual Report.

During FY 2008, the Water Department presented information on the Quagga mussels in San Diego's Reservoirs to the Colorado River Water User's Association. Water Department staff also presented information on the Integrated Regional Water Management plan to the San Diego City Council on July 18, 2007, November 2, 2007, and December 4, 2007.

8.3.2.7 *Collateral Materials*

Table 8-8 below identifies the *Think Blue* collateral materials available and distributed in FY 2008 to target audiences by the Pollution Prevention Division's Education Program. The italicized entries were new items for FY 2008.

Table 8-8: FY 2008 *Think Blue* Collateral Materials by Target Audience

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2008
Brochures/Training							
Brochure: *Think Blue* Solutions (English)	X	X	X		X		3880
Brochure: *Think Blue* Solutions (Spanish)	X	X	X		X		905
Card: 3C's (English)							541
Card: 3C's (Spanish)							75
Door Hanger: *Think Blue* 3 C's (English)		X					200

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2008
Booklet: What's Cookin'? (English and Spanish)			X				100
Booklet: Green Wrench Guide (English)			X				100
IPM Pest Tip Cards – Set of 12 (English)	X	X	X	X	X		9237
IPM Pest Tip Cards – Set of 12 (Spanish)	X	X	X	X	X		1287
Postcard: Mission Bay Rivers (English)		X					300
Postcard: Mission Bay Rivers (Spanish)		X					100
Postcard: Mission Bay Boating (English)		X					400
Postcard: Mission Bay Boating (Spanish)		X					100
Incentive Items							
Dustpans - English	X	X	X	X	X		881
Dustpans - Spanish	X	X	X	X	X		293
Pencils - English	X	X	X	X	X	X	2823
Pencils - Spanish	X	X	X	X	X	X	1365
Key Chains - English	X	X				X	2500
Key Chains - Spanish	X	X				X	1885
Stickers - English	X	X				X	2145
Stickers - Spanish	X	X				X	60
Magnetic Notepad	X	X	X	X	X	X	1159
Brooms	X	X					627
Frisbees - English	X	X				X	1520
Frisbees - Spanish	X	X				X	420
Frisbees - Small	X	X				X	350
TOTAL DISTRIBUTED							**33,055**

Other City Departments/Division also distributed additional collateral materials to target audiences in FY 2008 and the information is summarized in the following table.

Table 8-9: FY 2008 City Department/Division Collateral Materials Distribution by Target Audience

Department /Division	Collateral Material	Target Audience[4]	Estimated # of people targeted
Community Services Department	Customer Service Centers - Storm Water Pollution Prevention Brochures	4	Brochures were available for walk-in customers at each location - Number unknown
City Treasurer's Office	*Think Blue* handout available in lobby information rack	1-5	Approximately 60,000 citizens come into the lobby per year
ESD's HHW Program	HHW Transfer Facility Brochures distributed to citizens calling HHW hotline	1-5	1,700
ESD's HHW Program	HHW Reference Number Brochures distributed to citizens by City staff	1-5	2,000
MWWD	MWWD Energy Fact Sheet	2,3,4,5	Varies
MWWD	Water/Sewer Bill Inserts	2,3,4,5	702,000
MWWD	Industrial Wastewater Control Program Brochure	1,2,3,4,5	Varies
MWWD	Ocean Monitoring Brochure	4,5	Varies
MWWD	Metro Biosolids Brochure	1,2,3,4,5	Varies
MWWD	North City Water Reclamation Plant Brochure	1,2,3,4,5	Varies
Office of Special Events	Special Event Permit Application	1-5	600
Parks and Recreation	BMP Information handouts – distributed with permits issued by the Department	4,5	11,534
Parks and Recreation	BMP Information handouts – distributed to contractors performing work within City Parks	1-4	235
Parks and Recreation	Storm water related brochures	1-5	20,345
Parks and Recreation	Displayed storm water brochures throughout the City on Recreation Center bulletin boards	1-5	500
Stadium	Provided handouts to Stadium patrons re: Storm Drain Protection	4	10,000
Street Division	Door-hangers with storm water message	4	500

[4] 1. Construction Site Owners and Developers; 2. Industrial Owners and Operators; 3. Commercial Owners and Operators; 4. Residential Community, General Public, and School Children; 5. Under-represented audiences in 1-4.

Department /Division	Collateral Material	Target Audience[4]	Estimated # of people targeted
Water Department	Annual Drinking Water Quality Report	1,2,3,4,5	570,000
Water Department	Lakes Brochure and Insert	4	8,500
Water Department	Customer Survey for Water Operations Services	3,4	274
Water Department	Customer Survey for Street Division Services	3,4	12
Water Department	Water Conservation Calendar	3,4	10,000
Total			**1,398,200**

8.3.3 Tools for Student-Age Groups

Student-age directed outreach and education will continue to be a long-term commitment for the City. Through the "Project SWELL" elementary school curricula, the City will continue to educate school children about the importance of our recreational waterways and human-water interaction through a well-balanced, comprehensive and hands-on water quality and pollution prevention curricula.

Project SWELL balances environmental and scientific studies as a comprehensive and hands-on K-12 water quality and pollution prevention curricula. San Diego Unified School District, the City, and San Diego Coastkeeper have united to enhance the existing science curriculum used with inquiry-based FOSS (Full Option Science System) hands-on science kits. The lessons align with the State Science Content Standards for California Public Schools, Science Framework for California and meet the State's environmental education requirement. It teaches children about the importance of our recreational waterways and human-water interaction from both environmental-conservation and environmental-science standpoints.

This unique San Diego-based education program supports progressive change by educating our children about pollution prevention and how their participation can help to improve the health of our ocean and waterways. Through these lessons, students learn how they can minimize impacts to this sensitive coastal environment and address environmental issues pertaining specifically to our region.

With the roll out of the 2nd grade Pebbles Sand and Silt curriculum in FY 2008, and the 4th, 5th, and 6th grade level lessons, Project SWELL reached more than 40,000 students within the San Diego Unified School District. Also, with the rollout of the Oceanside Unified School District program for 5th grade students, Project SWELL reached an additional 1,643 students.

In FY 2008, for the San Diego Unified School District, Project SWELL's 2nd grade "Pebbles, Sand, and Silt" kit reached 9,451 students, 4th grade "Ecosystems" kit reached 9,747, 5th grade "Water" kit reached 9,897, and 6th grade "Landforms" kit reached 9,701.

Every seven years, the State Board of Education reviews the curriculum framework for each subject. This year, San Diego and Oceanside Unified School Districts re-adopted the FOSS science curriculum. However, there are new requirements including a mandate that every

teacher has a science kit in the classroom. In the past, teachers rotated the kits throughout the year, teaching the lessons at different times of the academic calendar year. Recently, Coastkeeper has been working to update the existing Project SWELL lessons to meet the new adoption requirements by the beginning of the next school year.

Currently, Project SWELL is continuing to expand with the development of a Kindergarten curriculum which is expected to be launched in 2009. This curriculum will reach another 10,000 students annually. In addition to expanding Project SWELL in SDUSD, Coastkeeper will continue to expand in OUSD with the launch of the 6th grade lessons in Fall 2008. This curriculum will reach approximately 1,500 students. A formal evaluation form for students and teacher surveys are also under development for both the SDUSD and OUSD.

With the regional expansion efforts in North County and South Bay schools it is ultimately hoped that Project SWELL will reach every K-12 student in San Diego County to provide hands-on environmental education. The Project SWELL curriculum will foster a sense of stewardship for our natural environment and help to empower and educate these future leaders of America to understand and improve the condition of San Diego's coast and waterways.

Table 8-10 below identifies the *Think Blue* collateral materials available and distributed in FY 2008 to student age groups by *Think Blue*. The italicized entries were new items for FY 2008.

Table 8-10: FY 2008 *Think Blue* Collateral Materials for Student Age Groups

Category Title	Children	Quantity Distributed in FY 2008
Kids: W&R Coloring Book (English)	X	50
Kids: W&R Coloring Book (Spanish)	X	65
Kids: Fish Coloring Page	X	421
Kids: Word Search	X	276
Kids: Water-Where Does it Go?	X	426
San Diego Unified School District SWELL:2nd grade "Pebbles, Sand, and Silt" Kit	X	9,451
San Diego Unified School District SWELL: Investigation 4th Grade "Ecosystems" Kit	X	9,747
San Diego Unified School District SWELL: Investigation 5th Grade "Water" Kit	X	9,897
San Diego Unified School District SWELL: Investigation 6th Grade "Landforms" Kit	X	9,701
Oceanside Unified School District SWELL: 5th Grade Kit	X	1,643
Total		**41,677**

9 PUBLIC PARTICIPATION

9.1 INTRODUCTION

This section describes the steps taken primarily by the Pollution Prevention Division to facilitate public participation during FY 2008. While closely linked to public education efforts (see Section 8, "Education"), public participation involves interacting and assessing the public's willingness to participate and ability to retain storm water messages.

9.2 PROGRAM IMPLEMENTATION

The Pollution Prevention Division has engaged and embraced the critical role public participation plays in the success of pollution prevention efforts. Specific public participation goals and objectives were identified in the City's 2008 JURMP. The following storm water pollution prevention public participation efforts were implemented by the City during FY 2008.

Telephone Survey

The Pollution Prevention Division conducted a telephone survey of adult residents in the City between March 13 and March 22, 2008. The purposes of the survey included:

- To explore attitudes about storm water pollution;
- To explore barriers to behavioral change that might reduce storm water pollution;
- To assess different potential motivations for change including those that address barriers; and
- To provide information that can be used in formulating a community based social marketing program.

As part of the survey 800 interviews were conducted with adult residents using a random-digit dial methodology, in which a random list of all active residential telephone numbers served as the sample. The margin of error for citywide results is plus or minus 3.4% at a 95% confidence level. Interviews were conducted in both English and Spanish.

A few questions in this survey were asked in similar studies conducted in previous years. Where appropriate, the results were compared from this survey with those from previous studies. The report presents results broken out by subgroups of adult residents (i.e., by men versus women or by zip code) only if the differences are both statistically significant using standard significance testing, and are of relevance. Where statistically significant and relevant, the results are broken out by watershed. The survey findings are included as Appendix V.

Focus Groups

Focus groups have been and will continue to be utilized as an effective means of obtaining useful input in testing the effectiveness and resonance of strategic communications messages. During FY 2008, the Pollution Prevention Division conducted a small focus group to assist with the Think Blue program rebranding and messaging strategy. In addition to other Copermittees, representatives from Coastkeeper, the County Water Authority and University of California Cooperative Extension also participated in providing feedback regarding logo design and slogans for the Think Blue campaign.

Storm Water Hotline

The 619-235-1000 Storm Water Hotline provided the public the opportunity to contact the Storm Water Department in the event potential water nuisances or an illegal discharge entering the

storm drain system was observed. During FY 2008, the hotline continued to be an invaluable asset in helping the Pollution Prevention Division Code Enforcement Section in the citation and, where possible, education of residents and businesses that violate the City's Stormwater Ordinance. In FY 2008 the Pollution Prevention Division's Code Enforcement Section conducted 1,932 investigations as a result of hotline calls in FY 2008.

Web Site

The City's web site, www.ThinkBlue.org continued to provide the public the ability to obtain information and offer comments on storm water programs and initiatives. In FY 2008 the web site was utilized to obtain public comments regarding the proposed Storm Water Standards Manual as well as drafts of the City's JURMP, six WURMPs, a proposed updated Storm Water Ordinance and proposed storm water BMPs for residents and businesses. The public was invited to enter their comments online and that feedback was collected and inserted as part of the public participation process.

As a comprehensive information repository, the Pollution Prevention Division web site continued to encourage public involvement by informing the public about the important issues associated with the Pollution Prevention Division. During the reporting period the website was visited 80,415 times (Table 9-1). A visit is considered a series of actions that begins when a visitor views their first page from the server and ends when the visitor leaves the site or remains idle beyond thirty minutes.

Table 9-1: FY 2008 Think Blue Website Visits

Month	Number of Visits
July 2007	7,433
August 2007	6,686
September 2007	5,568
October 2007	5,093
November 2007	5,007
December 2007	4,743
January 2008	5,129
February 2008	4,886
March 2008	6,487
April 2008	9,409
May 2008	10,837
June 2008	9,137
Total	**80,415**

Stakeholder Interviews

The City will continue to meet with key local and regional stakeholders in an effort to create partnerships and trust. The City will continue to consult stakeholders about concerns, issues of interest, and opportunities for the improving the Program.

Speakers Bureau

The City formatted its Speakers Bureau engagements to allow time for audience questions. Questions were recorded and logged as appropriate to ensure the public issues are understood and will be potentially useful in helping to guide future outreach efforts.

The Speakers Bureau engagements conducted by the Pollution Prevention Division in FY 2008 were watershed focused and will be included in the City's FY 2008 WURMP Annual Reports.

The Water Department conducted three presentations during the FY 2008. Water Department staff presented information on the watershed response to the 2003 and 2007 San Diego wildfires to the San Dieguito River Park Citizen Advisory Committee on November 2, 2007. Staff also presented information on the Quagga Mussels in San Diego's Reservoirs to the Colorado River Water User's Association on December 13, 2007. The San Diego Integrated Regional Water Management Plan was also presented to the San Diego City Council on July 18, 2007, November 2, 2007 and December 4, 2007.

Door-to-Door Canvassing

The City continued to utilize door to door canvassing to ensure residents in a particular area are receiving critical storm water related information. Providing one-on-one communication will be useful in identifying issues particular to that geographic region. During FY 2008, the Streets Division distributed door hangers with a storm water message to approximately 500 residents.

Meetings, Hearings, Open Houses, and Workshops

The City continued to host public meetings in an effort to provide the public the opportunity to have questions answered and concerns acknowledged. The City continued to properly notify these meetings and provide times and locations that are convenient for the public to attend.

The City Planning and Community Investment Department (Planning Department) staffed many public meetings, workshops, and hearings where water quality issues were discussed. Groundwork San Diego-Chollas Creek, a not-for-profit organization established to work with the City in implementing the Chollas Creek Enhancement Program, made informational presentations to the Encanto Neighborhood Community Planning Group and the Southeastern San Diego Planning Committee in March 2008.

MWWD also offered the public opportunities to participate in water quality issues through community meetings and City Council hearings. MWWD conducted several community meetings during reporting period regarding Redirection of Flow (ROF) and Substantial Conformance Review (SCR). ROF and SCR are additional tools MWWD utilized to prevent sewage from coming in contact with urban runoff. ROF studies attempt to determine if it is technically and financially feasible to re-direct the sewage flow out of the canyon mains and into mains located in the City right-of-way. There are many benefits of moving the mains to City rights-of-way resulting in easier monitoring and access, and less impact to canyon resources. A summary of the ROF and SCR meetings are provided in Table 9-2 and a summary of the City Council hearings are provided in Table 9-3 below.

Table 9-2: FY 2008 MWWD Community Meetings

Canyon Project	ROF/SCR	Community	Meeting Date
I-15 and Adams	ROF	Normal Heights	10/2/2007
35th Street	ROF	Normal Heights	10/2/2007
Willow Street	ROF	Peninsula City Community Planning Board	1/24/2008
El Camino Real/San Dieguito Road	ROF	Carmel Valley Planning Group	10/9/2007
Patrick Henry	ROF	Navajo	2/25/2008
Switzer	ROF	North Park Planning Committee	10/16/2007
Chollas Creek/Federal	ROF	City Heights	2/4/2008
Euclid and Menlo	ROF	City Heights	5/5/2008
Fairmount and Home	ROF	City Heights	5/5/2008
Valencia	ROF	Encanto Neighborhoods	6/16/2008
Presidio/Old Town	ROF	Mission Hill Town Council	5/8/2008
Presidio/Old Town	ROF	Old Town Community Planning Committee	5/14/2008
Presidio/Old Town	ROF	Mission Hill Heritage Community Group	5/15/2008
Chocolate/Juniper	ROF	North Park Planning Committee	4/15/2008
Chocolate/Juniper	ROF	Golden Hill Planning Committee	5/14/2008 & 6/11/2008
45th and Boston	SCR	Southeast Community Planning Group	5/12/2008
Shepherd	SCR	Tierrasanta Community Planning Group	6/18/2008
Norfolk	SCR	Kensington/Talmadge Neighborhood	5/14/2008
Peñasquitos Preserve	SCR	Los Peñasquitos Citizen Advisory Committee	3/20/2008

Table 9-3: FY 2008 MWWD City Council Hearings

Request for Council Actions	
Project	**City Council Date**
Procurement of Peroxide Regenerated Iron-Sulfide Control Pri-Sc/Pricept – U. S Peroxide	7/31/2007 & 9/4/2007
Sewer Pump Station 79 Upgrades – Pardee Homes – Participation Agreement	9/4/2007, 9/11/2007, & 9/18/2007
Accelerated Sewer Replacement – Adv. For Bids	9/25/2007, 10/23/2007, and 10/30/2007
Prop 218 Noticing: Wastewater Rate Adj. Related to Shames vs. City of San Diego; Water Rate due to SD County Water Authority Rate Increase – Rate Adjustments	7/30/2007
Pipeline Rehab Phase F-1 – Advertise and Award	10/23/2007 & 10/30/2007
Otay Mesa Trunk Sewer: Utility – Caltrans – Agreements 31766 & 31768	9/25/2007, 10/16/2007, 10/23/2007, &10/30/2007
Dakota Cyn Accel Sewer Replacement and Rehab - Additional Funding	9/25/2007, 11/6/2007, and 11/20/2007
Furnishing GVW Sewer Rodding Truck – Dion Int'l - Award	10/23/07, 11/13/07 & 11/20/07
As Needed Environmental Consulting Services: MWWD Support, Helix - Agreement	10/16/2007
MBC: Procurement Of Chemical Supplies For Mannich Polymer – Polydyne, Inc. – Sole Source No. 1568	11/13/07 & 1/8/08
Auditing Svcs Pay For Performance & Bid To Goal – AKT – Amendment No. 1	10/23/07 & 10/29/07
California Center For Sustainable Energy (CCSE)	11/13/07, 1/?/08 & 3/25/08

Request for Council Actions	
Project	**City Council Date**
Shames vs. City of San Diego	10/8/2007
Specific Canyon Trunk Sewer Group 1 - Amendment No. 3 - Bureau Veritas Design	12/4/07, 1/8/08 & 1/22/08
PLWTP: Modified (NPDES) Discharge Permit - Waiver	11/8/2007
Pipeline Rehab Phase G-1 – Advertise & Award	1/29/08, 2/19/08 & 3/25/08
NCWRP: Live Stream Discharge (Wet Weather) Feasibility Study, RMC Water - Award	1/29/08, 2/19/08 & 3/25/08
As Needed Engineering Services 2008-2011 Brown & Caldwell - Agreement	2/19/08, 3/25/08 & 4/15/08
Los Penasquitos North Wetland creation Project - Habitat West, Inc. - C.C.O. #2	3/25/08, 4/15/08, 4/22/08, 5/6/08
Specific Canyon Trunk Sewer Group 2 - Amendment No. 2 - Kennedy/Jenks	3/25/08 & 4/15/08
SBWRP Renewable Biogas Fueled On-site Power Cogen - Linde - Power Purchase Agreement	3/11/08 & 3/25/08
California Center For Sustainable Energy (CCSE) - Customer Service Agreement	4/15/08, 5/13/08 & 6/24/08
Lake Murray Mitigation, C.O.O. #1 - Recon	5/13/08 & 5/27/08
Sewer Flow Monitoring & Event Notification - ADS LLC - Amendment 4	6/24/2008
Otay Mesa T.S.: Sewer Conveyance Surcharge - Amendment Supplemental Sewer Capacity Fee	5/6/08 & 6/10/08
FY08 Deappropriation of Fund 41509 Capital Improvement Funds	6/17/08
Pipeline Rehabilitation Phase H-1 - Advertise & Award	6/24/08
As Needed Environmental Consulting Services: MWWD Support, Helix - Agreement	10/23/07, 11/13/07 & 11/20/07

MWWD also participates in the Canyon Watchers program. The Canyon Watchers program is a cooperative effort between MWWD and the San Diego Oceans Foundation. The program relies on volunteers who regularly walk in San Diego's urban canyons and inspect the sewer manholes for signs of leaks or deterioration of any kind. Instead of regular meetings, the canyon watchers submit online reports of their observations to either the MWWD website or the Oceans Foundation website. If the volunteers see a sewage spill, they are directed to immediately call the sewer emergency line (619-515-3525) and report the problem and MWWD crews respond.

Inspection Services of the City's DSD conducted two informational seminars for the general public during FY 2008 to distribute stormwater information and receive public input. An estimated 100 individuals attended the seminars.

During FY 2008, ECP-Design presented a variety of CIP projects to community planning groups, park and recreation councils/boards, City Council and the Coastal Commission. In addition, there were a variety of CIP projects which had environmental documents (primarily Environmental Impact Reports (EIRs) and Mitigated Negative Declarations (MNDs) that were circulated for public review and comment.

The Water Department is a founding member and represented the City to the San Dieguito Watershed Council during FY 2008. Water Department staff attended two meeting of the Council during the reporting period (10/3/2007 and 12/4/2007).

The Water Department also represented the City to the San Diego Integrated Regional Water Management Plan (IRWM Plan). The County Water Authority, City, and County of San Diego formed the Regional Water Management Group (RWMG), which has funded, guided, and managed the development of the IRWM Plan to date. The RWMG met weekly to research, review, discuss and formulate ideas and concepts for the Plan. The City also participates in the Regional Advisory Committee (RAC). The RAC has twenty-five members providing expertise in the areas of water supply, wastewater, recycled water, storm water and urban runoff, natural resources, and environmental stewardship. Participants have been chosen to represent these general topic areas, rather than the interests of their specific agencies or organizations. During FY 2008, Water Department staff participated in seven public meetings of the RAC. The IRWM Plan aims to integrate source water production, source water protection, watershed management, water quality monitoring, and storm water management across multiple jurisdictions and stakeholders.

Partnerships

The City continued to seek out and coordinate initiatives and activities with well-established organizations in an effort to engage the public and encourage their support and participation. During FY 2008, the City continued to work with key stakeholders to expand and continue the implementation of Project SWELL. Section 8 of this report contains information on Project SWELL.

10 FISCAL ANALYSIS

10.1 INTRODUCTION

The Pollution Prevention Division is responsible for reporting on the Jurisdictional Urban Runoff Management Program's (URMP) fiscal analysis to the San Diego RWQCB each year. The Pollution Prevention Division collected financial information from City departments through the "Annual Report Form Questions", as well as financial information from within the Division, and analyzed the fiscal information. A summary of the findings is included below.

10.2 FISCAL ASSESSMENT

For FY 2008, the City's actual City-wide expenditures for implementation of the Municipal Storm Water Permit requirements consisted of JURMP components (Figure 10-1).

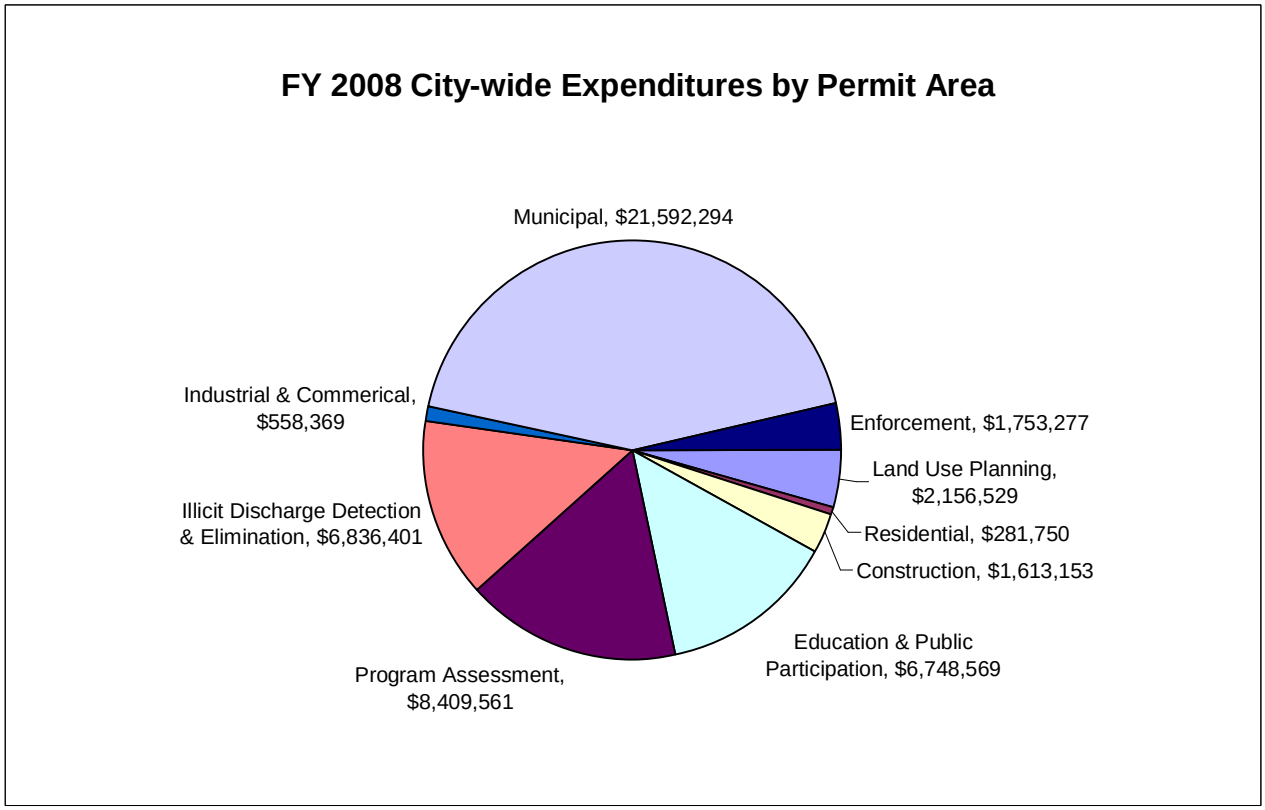

Figure 10-1. FY 2007 City-wide Expenditures by Permit Area

A total of $49,949,903 was expended in FY 2008 for the implementation of City-wide JURMP activities. This amount includes costs paid by sewer and water rate payers and costs reimbursed by project applicants. An overview of the expenditures reflected in these components is described below.

Explanations:

Land Use Planning
Activities identified in the Land Use Planning for New Development Section represent personnel and non-personnel expenses for plan check reviews, project design and SUSMP implementation, General Plan updates, and development and management of watershed plans.

Construction
Activities identified in this section represent personnel and non-personnel expenses for plan check review services, field inspections related to grading permits, public improvements, and building activities.

Municipal
Activities identified in this section represent personnel and non-personnel expenses for street sweeping, storm drain and channel maintenance, BMP implementation, and housekeeping (i.e., debris disposal and dry clean up methods).

Industrial
Activities identified in this section represent personnel and non-personnel expenses for inspection of industrial facilities.

Commercial
Activities identified in this section represent personnel and non-personnel expenses for Food Establishment Wastewater Discharge (FEWD) inspections.

Enforcement
Activities identified in this section represent personnel and non-personnel expenses for enforcing the City's storm water ordinance and implementation of the administrative civil penalties and citation process.

Residential
Activities identified in this section represent community clean up activities and educational activities.

Education and Public Participation
Activities identified in this section represent personnel and non-personnel expenses for training, educational materials, outreach events, and PSAs.

Illicit Discharge Detection and Elimination
Activities identified in this section represent personnel and non-personnel expenses for the identification and elimination of illicit discharges.

Program Assessment
Activities identified in this section represent personnel and non-personnel expenses for City-wide management, reporting, and assessment of the Municipal Permit.

10.3 GRANTS AND OTHER FUNDING FOR SPECIAL STUDIES

In addition to resources identified for Municipal Permit requirements, the City actively seeks grants and other funding sources for special studies and capital projects. Funding for these projects are limited to the projects specified and cannot be reallocated to other projects.

Therefore, these resources are currently not used in calculations for total expenditures. The following table lists projects that were initiated and/or in progress during FY 2008. The City managed a total of $11.8 million in special projects during FY 2008.

Table 10-1. Funding for Special Projects.

Funding Source	*Project*	*Amount*
Proposition 13, Clean Beaches Initiative Grant	San Diego River–Ocean Beach Water Quality Improvement	$1.5 million
Proposition 13	Chollas Creek Water Quality Protection and Habitat Enhancement Project	$2.2 million
Proposition 50	Areas of Special Biological Significance Dry Weather Flow and Pollution Control Program	$3.6 million
California State Appropriations	Rose and Tecolote Creeks Water Quality Improvement	$2.0 million
Proposition 84, Areas of Special Biological Significance	La Jolla Shores Areas of Special Biological Significance Protection Implementation Program	$2.5 million
Total Grant Funding		**$11.8 million**

10.4 FUNDING SOURCES

City-wide implementation of Municipal Permit requirements is funded through four main types of governmental funds: the General Fund, Special Revenue Funds, Enterprise Funds, and Internal Service Funds.

10.4.1 General Fund

The General Fund is the general operating fund for the City.

10.4.2 Enterprise Funds

Enterprise Funds are initiated for specific purposes and funded through fees for services. This funding type is designated for the operations, management, maintenance, and development of the department providing the service. For implementation of City-wide JURMP activities, activities are funded through the following enterprise funds:

- Airports Fund
- Development Services Enterprise Fund
- Recycling Fund
- Refuse Disposal Fund
- Sewer Revenue Funds
- Water Utility Fund
- Storm Water Fee

10.4.3 Internal Service Funds

Internal Service Funds are similar to Enterprise funds, in which fees are paid for services, but customers are usually other City departments. For implementation of City-wide JURMP activities, activities are funded through the following internal service funds:

- Engineering and Capital Projects Fund

- Equipment Division Funds

10.5 FUTURE PROJECTIONS

As mentioned before, City-wide expenditures are primarily funded through the General and non-General funds. One source of enterprise fund revenue is the Storm Water fee, which funds a portion of the City's storm drain maintenance activities, drainage capital projects, and efforts to reduce pollutants in the storm water. Annual revenue projections remain at approximately $6 million. To supplement this revenue, other funding options are being explored, including a possible increase of the existing storm drain fee discussed below.

In light of increasing program requirements, City-wide JURMP expenditures are projected to rise. The estimated Pollution Prevention Division budget for FY 2009 is approximately $48.8 million.

Alternative Storm Water Funding Study
In FY 2008, the City continued to study alternative sources of funding, including a possible increase of the existing storm drain fee, to support activities pursuant to the City's Municipal Permit as well as other regulatory programs (TMDLs, Areas of Special Biological Significance, and Cleanup and Abatement Orders). The City is studying the implications of such alternative funding sources and the benefits and challenges of implementation.

It is anticipated that such funding will enable the City to take a more integrated approach in addressing the requirements of the various water quality regulatory programs through comprehensive watershed-based planning, monitoring/data tracking, significant investments in the City's infrastructure (e.g., storm drains), investments in urban runoff–related programs (e.g., street sweeping), updates to the City's development regulations, enhanced enforcement, and greater education and outreach efforts.

11 SPECIAL PROJECTS

This section identifies and describes the City's completed, ongoing, and planned special projects and grants that are designed to examine and/or improve water quality or habitat conditions in the San Diego region.

11.1 BACTERIA IMPAIRED WATERS TMDL PROJECT 1 FOR BEACHES AND CREEKS

In 1998, numerous coastal beaches were placed on the State Water Board's §303(d) list as impaired for bacteria indicators. As a result of this action, the RWQCB coordinated with a consultant to develop a technical report of the bacteria impaired beaches and creeks in the boundaries of the San Diego RWQCB Region 9. The City was designated as the Stakeholder Advisory Group (SAG) representative and continued in this role throughout FY 2008.

During FY 2008, the RWQCB released the revised draft technical report on November 30, 2007. The City reviewed the draft technical report. On December 12, 2007, RWQCB staff reintroduced the proposed TMDL to the RWQCB for review and approval. The TMDL was approved and forwarded to the State Board for review and approval. State Board staff anticipates that this TMDL project will be heard by the State Board in the fall of 2008.

11.2 INVESTIGATION ORDER NO. R9-2006-0076 FOR THE DISCHARGE OF BACTERIA, NUTRIENTS, AND SEDIMENTS INTO IMPAIRED LAGOONS AND ADJACENT BEACHES AND CREEKS

Within the City, Famosa Slough and Los Peñasquitos Lagoon were identified for the development of TMDLs. On behalf of the responsible parties, the City prepared and submitted Quality Assurance Project Plans (QAPPs) for both waterbodies on August 30, 2007. Monitoring was initiated on October 1, 2007. Los Peñasquitos Lagoon monitoring was only conducted for the wet weather season because sedimentation only occurred during rain events. Famosa Slough monitoring will continue through September 30, 2008. Raw data from both waterbodies were submitted to the RWQCB on January 1, 2008, April 1, 2008, and July 1, 2008 for the preceding quarter. The named municipalities, along with Caltrans, met to coordinate Los Peñasquitos Lagoon activities on August 15, 2007, October 10, 2007, February 5, 2008, and May 22, 2008. Activities will continue into the next reporting period.

11.3 CLEANUP AND ABATEMENT ORDER NO. R9-2005-0126 FOR THE SAN DIEGO BAY SHIPYARDS CONTAMINATED SEDIMENTS

On April 29, 2005, the City, along with other organizations, received a Tentative Cleanup and Abatement Order (TCAO) from the RWQCB with regards to contaminated marine sediments in San Diego Bay at the Shipyard Sediment Site. The TCAO stated that the City had caused or permitted the discharge of urban storm water pollutants through municipal separate storm sewer systems (MS4) and Chollas Creek. Storm water was discharged from the MS4 at SW4 (Southwest Marine, Inc. leasehold), SW9 (NASSCO leasehold), and Chollas Creek and may have contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site. The TCAO required the City and other organizations to eliminate the effects of sediment contamination (metals, total suspended solids, petroleum products, and synthetic organics) to aquatic life in San Diego Bay.

On April 4, 2008, the RWQCB released the revised tentative Technical Report and its supporting documentation. The City provided comments to the RWQCB on May 5, 2008, and May 15, 2008. The submission dates for comments and the public hearing have been placed on hold as this project has moved into mediation due to the high potential for litigation. During the next reporting period, the City will continue its participation by attending necessary meetings and providing input and comments as appropriate.

11.4 CHOLLAS CREEK DIAZINON TMDL MONITORING FOR ORDER NO. 2004-0277

In compliance with this order, the City conducted monitoring for Diazinon during three storm events at two downstream locations on Chollas Creek. The participating municipalities, Caltrans, and the U.S. Navy met twice to review and provide comments on the draft report in preparation for its submittal. On January 30, 2008, the TMDL annual report was included as an appendix to the San Diego Bay Watershed Report and submitted to the RWQCB. Coordination, monitoring, and reporting will continue during the next reporting period.

11.5 PESTICIDE AND METALS MONITORING AT THE BOUNDARIES OF LA MESA AND LEMON GROVE

The City conducted monitoring at its boundaries with the Cities of La Mesa and Lemon Grove for the same pollutants as required in Order 2004-0277. The purpose of this monitoring program was to determine the City's pollutant(s) loading to the Chollas Creek. This data will be included in the next annual report as required by Order 2004-0277. This information will be incorporated into the San Diego Bay Watershed annual report and submitted to the RWQCB on January 31, 2009. Monitoring at these locations was not continued due to prioritization of all efforts conducted by the City.

11.6 TECOLOTE CREEK BACTERIA SOURCE IDENTIFICATION STUDY, PHASE I

The City initiated the *Tecolote Creek Bacteria Source Identification Study* applying the Natural Sources Exclusion Exception process in a watershed for the first time. This study entailed the investigation of bacteria sources during wet and dry weather in both the storm drain system and the creek. During the dry weather investigation, different land uses were targeted based on the Baseline Effectiveness Assessment designation of land use sources having a high-potential threat to water quality. The watershed was divided into four sectors, and multiple samples were collected in each sector within a 24-hour time span. The two dry weather events occurred on September 7, 2007 and April 17, 2008. The wet weather investigation required the collection of samples in the creek at the tributary confluences during two rain events on November 30, 2007 and January 5, 2008. On January 8, 2008 and July 10, 2008, City staff met with RWQCB staff to discuss this project's development. The City will continue to coordinate with the RWQCB TMDL staff and will provide the Phase I report at our next coordination meeting on September 2, 2008.

11.7 AERIAL DEPOSITION STUDY, PHASE II

Based on studies conducted in Los Angeles by SCCWRP, it was documented that aerial deposition was a major contributor to metals loading during rain events. The City determined that a similar study would help assess the sources of metals loading to the Chollas Creek and other areas within the City. The Phase I study collected eight samples from six sites and found that aerial deposition was a significant contributor of dissolved metals during rain events. The report was finalized and submitted to the RWQCB TMDL staff in the Fall of 2007. The 12-month Phase II study was initiated in October 2007. The purpose of this study was to monitor nine

sites biweekly (26 events) during dry weather. Additionally, wet weather deposition samples were collected during three storms at the Chollas Creek Site, SD8(1). This report will be provided to both the State Board and RWQCB for support of aerial deposition impacts in watersheds listed as impaired for dissolved metals. The City will continue monitoring and reporting during the next reporting period.

11.8 SWITZER CREEK PESTICIDE SOURCE IDENTIFICATION MONITORING

The mouth of Switzer Creek is listed as impaired for benthic community degradation and sediment toxicity. To help assess the City's contribution, a one-time monitoring event at over 20 sites in the watershed was conducted in June 2008. The results of this investigation are pending and will be discussed in future RWQCB TMDL workshops. Coordination, monitoring, and reporting will continue during the next reporting period for the TMDLs at the mouth of Chollas, Paleta, and Switzer Creeks.

11.9 SHELTER ISLAND COPPER TMDL MONITORING

The City storm drain system is listed as one of the contributors of copper to the Shelter Island Yacht Basin. To assess the City's load contribution, pollutograph monitoring was conducted at a City outfall during one spring storm event. This report is pending and will be incorporated into the San Diego Bay Watershed report that will be submitted to the RWQCB on January 31, 2009. Coordination, monitoring, and reporting will continue during the next reporting period.

11.10 TDY INDUSTRIES CLEANUP AND ABATEMENT ORDER (CAO)

The former Teledyne Ryan Aeronautics Site was found to discharge PCBs into Convair Lagoon. To address this problem, the Port of San Diego (Port) had a cap placed over the contaminated sediments to prevent their movement. Annual monitoring of the cap is performed by the Port to assess if contamination is continued. On November 7, 2001, the RWQCB issued investigation orders to potential responsible parties to determine if they have caused or contributed to the PCBs found on the Convair Lagoon remediation cap. The City completed the necessary investigations and reporting to demonstrate that there were no sources within the City's jurisdiction causing or contributing to the problem. The RWQCB issued a CAO to TDY Industries. During this reporting period, TDY Industries attended the monthly coordination meetings with the other interested parties. The City will continue to participate in the coordination meetings during the next reporting period.

11.11 AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE MONITORING

On May 31, 2006, the City submitted an application for an exception to the Ocean Plan's Areas of Special Biological Significance (ASBS) prohibition on the discharge of wastes. The application was accepted as complete in the Fall of 2007. The exception application monitoring program indicated there were kelp germination toxicity problems due to turbidity. Monitoring continued during this reporting period with a focus on the sources of sedimentation. Based on previous visual observations, this effort was designed to assess whether the majority of the loads were coming from developed areas *versus* undeveloped areas in the watershed. The report is under development, and monitoring will continue during the next reporting period. Results will be submitted to both the State Board and RWQCB. Additionally, the City is participating in the Bight'08 ASBS regional monitoring effort. Coordination meetings at the Southern California Coastal Waters Research Project (SCCWRP) "kicked off" on September 19, 2007. Subsequent coordination meetings were held at SCCWRP in December 2007 and June 2008. Coordination, monitoring, and reporting will continue during the next reporting period.

11.12 WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM ANNUAL REPORTS SPECIAL PROJECTS

Below is a summary of the City's special projects contained in the City's FY 2008 WURMP annual reports, prepared by the Watershed Copermittees as defined in the Municipal Permit.

Special Projects Discussed in the San Dieguito WURMP Annual Report:
Project status, ongoing:

- ILACSD Creek to Bay Cleanup Sponsorship;
- SDCK Coastal Cleanup Day Sponsorship;
- Alpha Project trash cleanups;
- Municipal Rain Barrel Installation Project;
- Targeted inspections:
    - restaurants
    - animal facilities
    - landscape facilities
    - municipal facilities;
- San Dieguito Watershed Management Plan;
- Integrated Regional Water Management Plan preparation participation;
- Trash segregation device installation; and
- Sediment and Peak Flow Controls 1.

Special Projects Discussed in the Los Peñasquitos WURMP Annual Report:
Project status, ongoing:

- ILACSD Creek to Bay Cleanup Sponsorship;
- SDCK Coastal Cleanup Day Sponsorship;
- Alpha Project trash cleanups;
- Municipal Rain Barrel Installation Project;
- Targeted inspections:
    - restaurants
    - animal facilities
    - landscape facilities
    - municipal facilities;
- Integrated Regional Water Management Plan preparation participation;
- Green Mall Porous Paving and Infiltration, Phase I; and
- Infiltration BMP retrofit.

Special Projects Discussed in the Mission Bay and La Jolla WURMP Annual Report:
Project status, completed:

- Areas of Special Biological Significance No. 29 and No. 31 – Integrated Coastal Watershed Management Plan and
- Rose and Tecolote Creeks Water Quality Improvement Project.

Project status, ongoing:

- Targeted Aggressive Street Sweeping Program;
- Kellogg Park Green Lot Retrofit Project;
- Mount Abernathy "Green Street" Retrofit Project (Tecolote Creek and Mission Bay);
- ILACSD Creek to Bay Cleanup Sponsorship;
- SDCK Coastal Cleanup Day Sponsorship;

- Alpha Project trash cleanups;
- Municipal Rain Barrel Installation Project;
- SDCK Coastal Cleanup Day Sponsorship
- La Jolla Shores CBSM Outreach Pilot (business and residential); and
- Tecolote Creek Bacterial Source Identification Study.

Project status, planned:

- Rose Creek Watershed Opportunities Assessment;
- Beach Area Low Flow Storm Drain Diversion Project, Phase III;
- Mission Bay and Coastal Beaches Sewage Interceptor System upgrades;
- Targeted inspections:
    - restaurants
    - animal facilities
    - auto-related facilities
    - landscaping facilities
    - municipal facilities
    - residential facilities;
- Hydrodynamic Separator Inspections;
- Mission Bay Dry Weather Flow Diversions and Flap Gates;
- Infiltration LID BMP1 and BMP 2; and
- Avenida de la Playa Low Flow Storm Drin Diversion Project.

<u>Special Projects Discussed in the San Diego River WURMP Annual Report:</u>
Project status, ongoing:

- Alpha Project trash cleanup
- ILACSD Creek to Bay Cleanup Sponsorship
- SDCK Coastal Cleanup Day Sponsorship
- Targeted inspections:
    - animal facilities
    - landscaping facilities
    - municipal facilities;
- Hydrodynamic Separator installation; and
- San Diego River Foundation Sponsorship.

Project status, new:

- Infiltration LID BMP 1 and
- Infiltration LID BMP 2.

<u>Special Projects Discussed in the San Diego Bay WURMP Annual Report:</u>
Project status, completed:

- Chollas Creek Water Quality Protection and Habitat Enhancement Project.

Project status, ongoing:

- Alpha Project Trash Cleanup;
- ILACSD Creek to Bay Cleanup Sponsorship;
- SDCK Coastal Cleanup Day Sponsorship;
- Chollas and Paleta Creeks Navy Trash Boom;
- Targeted inspections:
    - auto facilities;

- Targeted aggressive street sweeping;
- Municipal Rain Barrel Installation Project;
- Dalbergia Street "Green Mall" Infiltration Project;
- Memorial Park "Green Lot" Infiltration Project;
- Chollas Creek Diazinon TMDL;
- Chollas Creek Dissolved Metals TMDL;
- Dry Weather Aerial Deposition Study;
- Chollas Creek Enhancement Program; and
- Chollas, Paleta, and Switzer creek mouths TMDL.

Project status, new:

- Targeted inspections:
  - restaurants;
- Southcrest Park "Green Lot" Infiltration Project; and
- El Cajon Boulevard Drain Filter Insert Project.

Special Projects Discussed in the Tijuana River WURMP Annual Report:

Project status, ongoing:

- Alpha Project trash cleanup;
- ILACSD Creek to Bay Cleanup Sponsorship;
- SDCK Coastal Cleanup Day Sponsorship;
- Targeted inspections:
  - auto facilities;
- Municipal Rain Barrel Installation Project;
- Trash segregation BMP installation; and
- "Green Mall" Infiltration Retrofit Project;

Project status, new:

- Targeted inspections:
  - restaurants.

Project status, planned:

- Karma/Karma Second Chance PSAs;
- Mobile advertising; and
- Auto-related facility outreach regarding new codes and increased inspections.

11.13 ADDITIONAL WATERSHED ACTIVITIES

Additional watershed activities that are planned for implementation in FY 2009 and beyond are described in the appropriate watershed urban runoff management plans and will be reported in the WURMP annual reports. Additional watershed activities will be implemented to meet the requirements of Order R9-2007-0001 with funds from past awarded grants and other sources.

12 EFFECTIVENESS ASSESSMENT COMPONENT

12.1 INTRODUCTION

The requirements of the Municipal Storm Water Permit (Municipal Permit) specify that the City shall assess, both annually and long term (five-year intervals), the effectiveness of each Significant Activity implemented, Municipal Permit Component, and the overall Jurisdictional Urban Runoff Management Program (JURMP).

This section outlines the effectiveness assessment process, reports the compliance assessment results for FY 2008, presents the Significant Activity results, and provides JURMP program recommendations for FY 2009. Overall, the City successfully met its targeted outcomes for compliance with the Municipal Permit during FY 2008. The City has identified areas for improvement during FY 2009, including enhanced data collection and sharing, and more frequent coordination between the Storm Water Department and City-wide departments to ensure that the City meets its targeted outcomes for compliance with the Municipal Permit during FY 2009. In addition to compliance with the Municipal Permit, the City is also implementing additional efficiency assessments for a select group of Significant Activities.

12.1.1 Assessment

The City uses assessment as part of an iterative feedback loop that incorporates planning, implementation, and assessment. The City also believes that it is imperative to assess the efficiency, or the cost effectiveness, with which load reductions are obtained at the individual activity, program component, and program-wide levels. It is only through maximizing the efficiency of program efforts that urban runoff programs can truly maximize pollutant load reductions and achieve the ultimate goal—the protection and improvement of water quality in the regional creeks, rivers, beaches, and bays.

12.1.2 Effectiveness Assessment Process

The City views the JURMP and the WURMP as integrated components of its overall municipal Storm Water Pollution Prevention Program. The City's overall Storm Water Pollution Prevention Program incorporates the JURMP, WURMP, and other programs as needed to implement and comply with the Municipal Permit.

Annually, the City follows the Iterative Program Effectiveness Assessment Process summarized in Figure 12-1. This process is designed to provide a framework for efficiency maximization that helps answer the overarching program management questions posed over the course of five years. Details regarding the process can be found in the *2008 City of San Diego Jurisdictional Urban Runoff Management Plan*.

Activities will be assessed and refined to achieve or increase load reductions, improve the load-reduction to cost ratio, or increase the efficiency of the activity following the process presented in Figure 12-2. If no refinement can be made, alternative activities may be piloted and phased in as substitutes, if the activity was not required by the Municipal Permit. If the activity was required by the Municipal Permit, improvements to future requirements can be justified through data tracking.

During the long-term assessment (five-year intervals), an attempt is made to optimize resources using the process outlined in Figure 12-3. During this process, information gathered and stored in the Activity Efficiency Ratings Table over the Municipal Permit cycle will be summarized into one comprehensive database. This database can be used to assist in answering management

questions as well as assessing and optimizing the City's overall Storm Water Pollution Prevention Program (JURMP and WURMP).

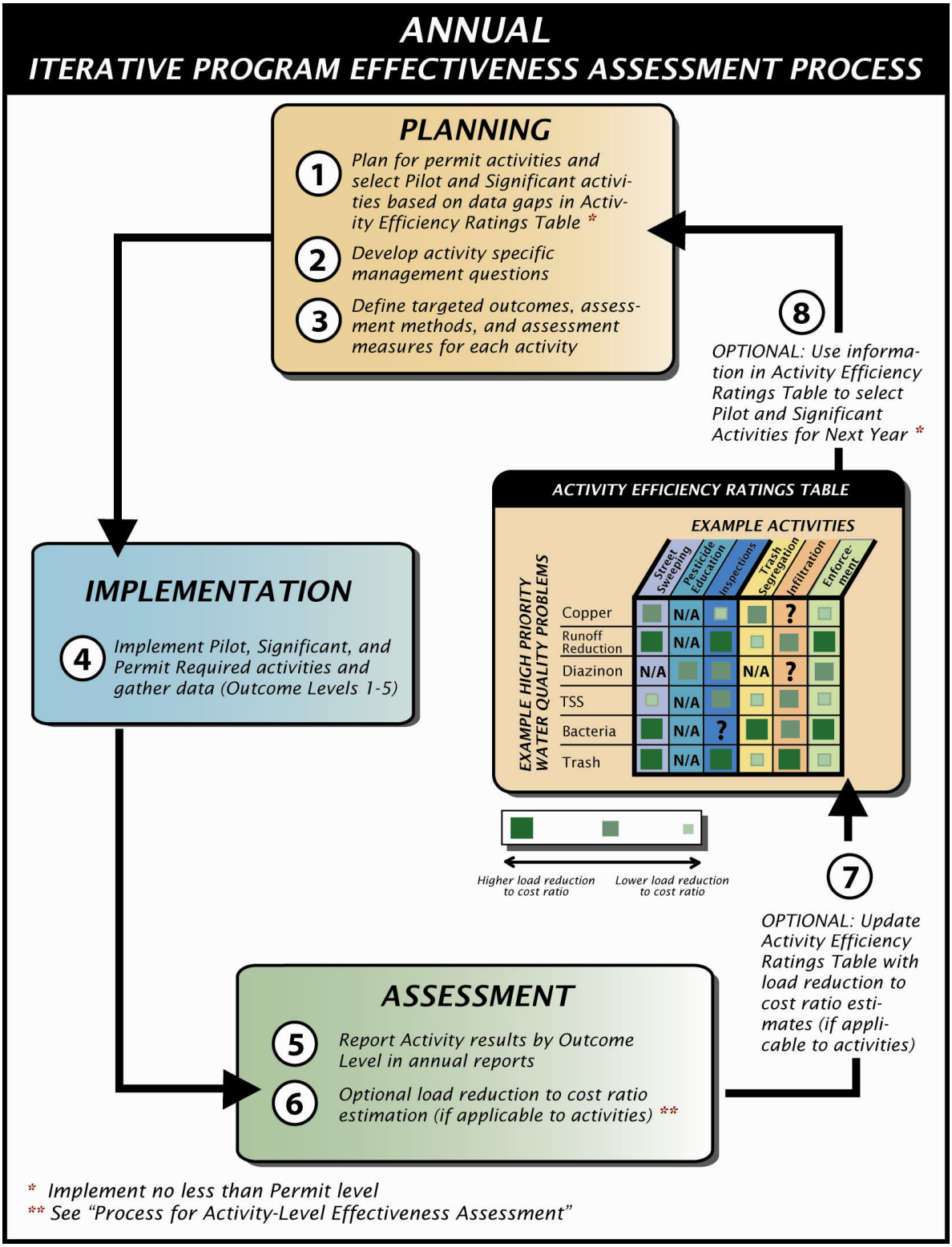

Figure 12-1. Planning, Implementation, and Assessment Process for URMPs

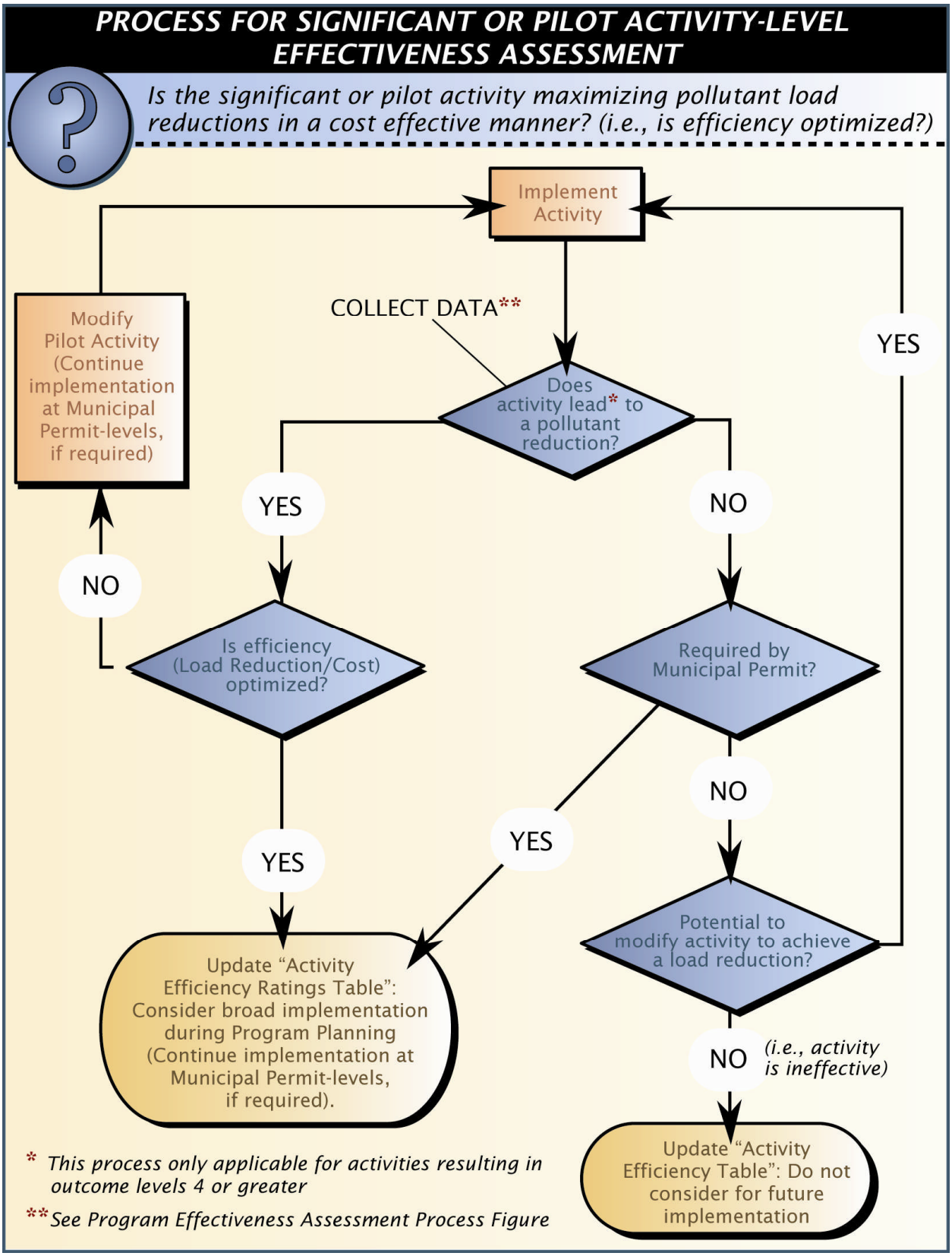

Figure 12-2. Flow Diagram of Activity-Level Effectiveness Assessment

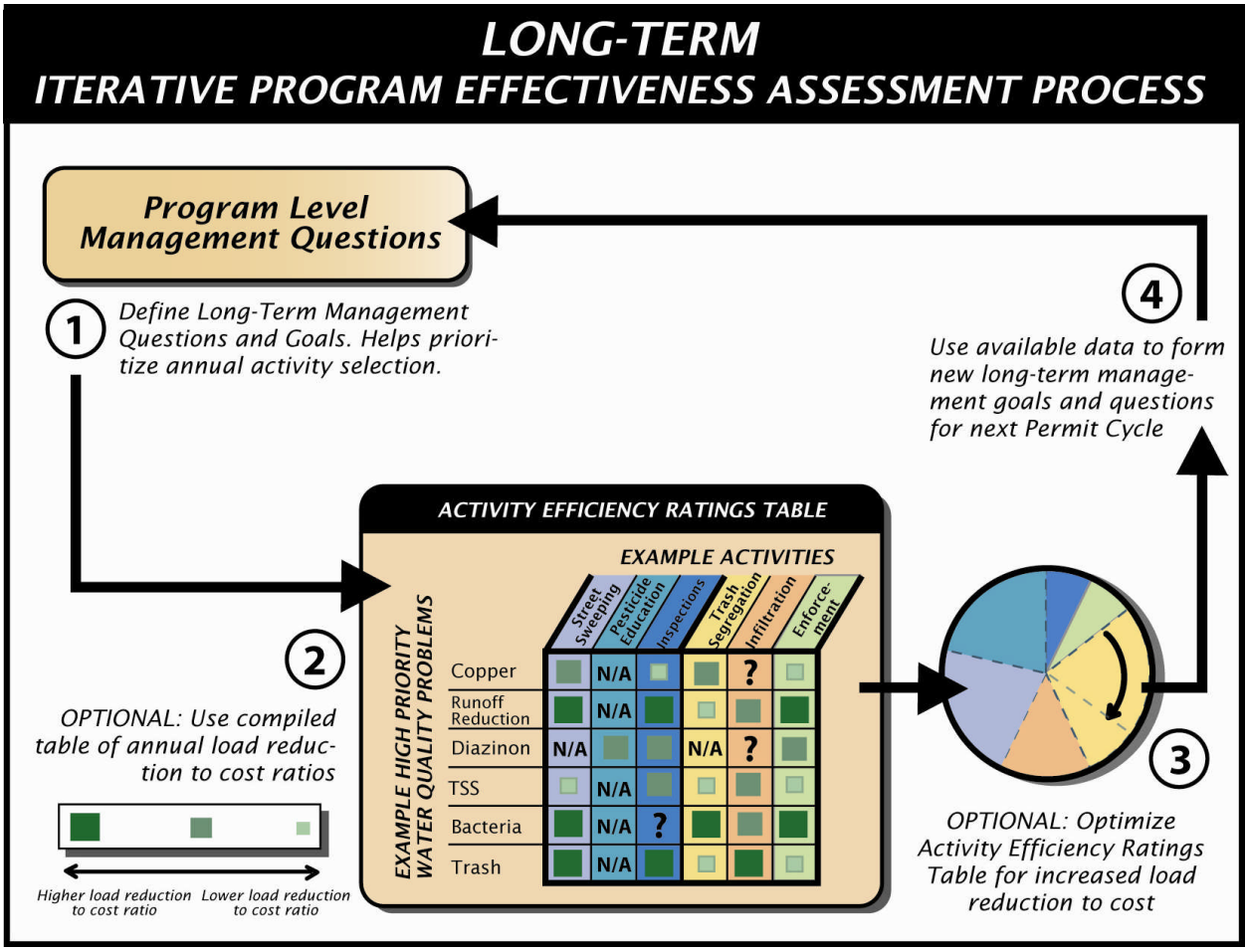

Figure 12-3. **Long-Term Program Effectiveness Assessment Process**

12.2 EFFECTIVENESS ASSESSMENT RESULTS

12.2.1 Annual Assessment Results

The City assesses effectiveness at three levels: Program, Municipal Permit Component, and Significant Activity. The following section summarizes the results of assessment for Program and Municipal Permit Component together, and then goes on to summarize the assessment results for each Significant Activity. Program and Municipal Permit Component assessments are focused on compliance, measured by comparison to targeted outcomes, and the City's effectiveness at implementing the Municipal Permit. Significant Activity assessments are focused on the effectiveness and efficiency of implementing pollutant reducing activities, or an in-depth analysis of an existing City program. General recommendations for each Significant Activity are included in the Significant Activity assessments in this section, and specific recommendations for changes to Significant Activities are presented in Appendix W. Overall Program recommendations are presented in Section 12.3.

A) Compliance Assessment—Program and Municipal Permit Components

Program compliance is based on the summation of the individual Municipal Permit Component compliance evaluations. Municipal Permit Component compliance is evaluated by comparing the targeted outcomes for individual Municipal Permit requirements to the results for FY 2008.

For the purpose of this year's evaluation, the targeted outcomes for each Municipal Permit requirement are defined as meeting the baseline Municipal Permit requirements of Order R9-2007-0001. These evaluations are summarized in Table 12-1 below by Municipal Permit Component. The details of the Municipal Permit Component assessment are located in tables as Appendix X.

During this first year of the new assessment process, the City has implemented its JURMP in compliance with Municipal Permit requirements, and has identified areas for improvement during FY 2009 (Table 12-1, below). Achievements during FY 2008 include: all new City staff received storm water training during FY 2008; the ESD collected 511.7 tons of HHW; 2,770 pounds of debris were removed due to storm drain cleaning; and Field Engineering and the Inspection Services Division conducted over 51,000 construction site inspections. Based on the FY 2008 effectiveness assessment results, recommended improvements to the Program have been developed. These include changing the tracking process for construction inspections to ensure that the required frequency of inspection is met. This will be implemented by electronically tracking the date of inspection to demonstrate compliance. To ensure that municipal inspections are completed as required by the Municipal Permit, Pollution Prevention Division staff will conduct walk-along inspections with Department/Division staff. Additionally, improved coordination with departments will be implemented by increasing the number of memorandums sent to Departments/Divisions (Table 12-1).

Table 12-1. Municipal Permit Component Targeted Outcome Assessment Results Annual Summary

Municipal Permit Component	Targeted Outcome Assessment Result	Compliance Assessment Highlights	Conclusions and Recommendations
D.1 Development Planning	Met all targeted outcomes	• Conducted two (2) public meetings on the updates to the Stormwater Standards Manual, reaching approximately 40 individuals • Reviewed and applied Stormwater Standards Manual to all projects for urban runoff requirements	This Component met targeted outcomes, no changes to implementation of the Permit Component are recommended
D.2 Construction	Met all targeted component outcomes; with exception of .07% of site inspections	• Completed monthly updates to the construction inventory • All required BMPs were implemented at construction sites • Field Engineering conducted over 7,500 inspections • Inspection Services Division conducted over 43,500 inspections • Of 704 (add DSD) active construction sites during FY 2008, only 1% (7) were not inspected at the required minimum frequencies • Inspection Services conducted two (2) public seminars	The City recognizes that a small percentage of the required inspections were not conducted for the high and medium priority project sites during FY 2008 (in some cases, some of the inspections may have occurred, but were not tracked). Of 704 sites, seven did not receive the full number of inspections required. The missing inspections at the seven sites constituted 19 of the over 3,100 inspections required to be conducted during FY 2008, representing less than 0.7%. The City inspectors were on site during those weeks of the missing inspections and although not formally documenting storm water inspections, part of their inspection routine is to evaluate storm water BMPs for adequate implementation thereby ensuring that eh sites are adequately protected against non-storm water and/or pollutant discharges. To address this issue, inspection departments (Development Services and Engineering & Capital Projects) will be emphasizing inspection requirements at future trainings, and the Pollution Prevention Division will be meeting with these departments on a quarterly basis to ensure inspectors are kept current with baseline and seasonal storm water requirements. In addition, during FY 2009, the City changed its method of tracking the frequency of inspections so that the date of inspection is tracked electronically.
D.3.a Municipal	Met all targeted component outcomes; with exception of 2% of facility inspections	• All Department-Specific minimum BMP requirements were met • 2,770 pounds of debris were removed from storm drain cleanings • ESD collected 511.7 tons of HHW • All Metropolitan Wastewater Department inspections were performed as required • Approximately 2% (15 out of 740) municipal facilities were not inspected	1) During FY 2008, 15 of the City's approximately 740 facilities were not formally inspected for storm water compliance. However, good housekeeping and BMPs that have been incorporated into daily operations were in place to ensure that the facilities are adequately protected against pollutant discharges. To ensure facilities are formally inspected in the future, the buildings will be inspected twice during FY 2009 and future years in accordance with the City's 2008 JURMP. In addition, the Pollution Prevention Division sent out a memorandum to all Departments/Division in September 2008 reminding staff of the inspection

Table 12-1. Municipal Permit Component Targeted Outcome Assessment Results Annual Summary

Municipal Permit Component	Targeted Outcome Assessment Result	Compliance Assessment Highlights	Conclusions and Recommendations
		during FY 2008	requirements for municipal facilities. Pollution Prevention Division staff will also be conducting walk-along inspections with the Departments/Divisions and will continue to now meet with the departments on a more frequent basis.
D.3.b Industrial and Commercial	Met all targeted outcomes	• 21% of the City's commercial and industrial inventory received site visits and/or inspections • Over 50% of all stationary sites determined to pose a high threat to water quality (TTWQ) were inspected during FY 2008 • 419 industrial and 815 commercial site visits were made in FY 2008	Municipal Permit Component met targeted outcomes, no changes to implementation of the Permit Component are recommended
D.3.c Residential	Met all targeted outcomes	• 1,200 Think Blue surveys completed during San Diego County Fair (results reported during FY 2009) • Think Blue outreach program targeted toward bacteria, nutrients, sediment, pesticides, and trash	Municipal Permit Component met targeted outcomes, no changes to implementation of the Permit Component are recommended
D.4 Illicit Discharge Detection and Elimination	Reported in December	• Report to be Submitted in December	Municipal Permit Component met targeted outcomes, no changes to implementation of the Permit Component are recommended
D.5 Education	Met all targeted outcomes	• All new City staff received storm water training • DSD Inspection Services Division trained approximately 200 staff by conducting 3 storm water tailgate activity specific trainings during the reporting period	Municipal Permit Component met targeted outcomes, no changes to implementation of the Permit Component are recommended
D.6 Public Participation	Met all targeted outcomes	• Think Blue website visited 80,415 times • Hotline calls resulted in 1,932 enforcement inspections • Telephone survey collected interviews with 800 respondents	Municipal Permit Component met targeted outcomes, no changes to implementation of the Permit Component are recommended

B) Effectiveness Assessment—Significant Activity Assessments

Effectiveness assessments were completed for each of nine significant activities identified in the *2008 City of San Diego Jurisdictional Urban Runoff Management Plan*. The City's goal during FY 2008 was to develop an enhanced framework to assess the JURMP activities and assess the efficiency of those activities. The framework has been successfully completed and is outlined in this document (Section 12.1.2).

The results of the FY 2008 Significant Activity assessments are presented in Table 12-2. It should be noted that because the City's efficiency assessment framework was not completed prior to the beginning of FY 2008, not all of the data necessary to answer the management questions presented in the Significant Activity assessments were tracked throughout the Fiscal Year. Therefore, in lieu of efficiency assessments, the effectiveness (load reduction) of the Significant Activities was evaluated for FY 2008. In order to adequately track the data required, the City is modifying the Significant Activity scopes. For a discussion of changes to the Significant Activity Assessments for FY 2009, see Section 12.2.2 and Appendix W.

Table 12-2. Significant Activity Effectiveness Assessment Results Summary

Significant Activity	Outcome Levels			
	Level 1	Level 2	Level 3	Level 4
1. Parking Lot Sweeping	Parking Lots Swept=422	NA	NA	Debris Collected=1,346 tons
2. Storm Drain Catchment Cleaning	Catch Basins Cleaned= 14,058	NA	NA	Debris Collected=433.97 tons
3. Setting Grading Limits at Construction Sites	High and Medium Priority Construction Inspections Complete=697, all BMPs correctly implemented	NA	NA	NA
4. Inspection of Construction BMPs	Construction Inspections Complete= 1,836	NA	NA	Expected Load Reduction Estimate FY 2009
5. Industrial and Commercial BMP Inspections	Facilities Screened=1,237 Total Facilities Inspected=807 Commercial Facilities Inspected=515 Industrial Facilities Inspected=292	NA	NA	Expected Load Reduction Estimate FY 2009
6. IDDE Inspections and Enforcement	Number of Elicit Discharges Eliminated due to Hotline Calls=304	NA	NA	Expected Load Reduction Estimate FY 2009
7. Enforcement Inspections and Follow Ups	Number of Hotline Calls=1,931 Number of Discharges Eliminated Due to Hotline Calls=726	NA	NA	Expected Load Reduction Estimate FY 2009
8. Public Outreach—Load Reduction Before and After Outreach	Results Reported in Mission Bay and La Jolla WURMP			
9. Public Outreach—Methods for Increasing Public Participation	Number of Hotline Calls Received=1,931 Number of People Targeted by Outreach=1.9 Million	Survey Results to be reported FY 2009	Survey Results to be reported FY 2009	NA

Activity 1. Municipal Parking Lot Sweeping – Assess the Efficiency of Parking Lot Sweeping		
Management Questions	• What is the optimal frequency of parking lot sweeping (point of diminishing returns)?	
Targeted Measurable Outcome(s)	• Achieve load reduction of debris (any amount) from parking lot sweeping	
Data Recorded	Total number of municipal parking lots (Outcome Level 1- determined during assessment)	434
	Total number of municipal parking lots swept during FY 2008 (Outcome Level 1 – used in assessment)	422
	Total surface area of parking lots swept during FY 2008 (Outcome Level 1 – determined during assessment)	328 acres *
	Frequency of parking lot sweeping for each municipal parking lot during FY 2008 (Outcome Level 1)	Once per year
	Total tons of debris collected while sweeping municipal parking lots during FY 2008 (Outcome Level 4 – used in assessment)	1,346 tons

* This value does not directly correlate with the total tons of debris collect during FY 2008. The Water Department and Commercial Services Center provided data about the number of parking spaces swept, but not the weight or volume of debris removed.

Optimization of parking lot sweeping efficiency is a long-term assessment; and therefore a baseline assessment of currently available information was completed to investigate parking lot sweeping efficiency. These results will be used to determine data requirements and relationships necessary for improved efficiency estimates.

Methodology

City departments reported parking lot areas in square footage or parking spaces. The number of parking spaces was converted into square footage using the equivalency "greater than 5000 sq ft or greater than 25 parking spaces," defined in Chapter 16.100.040 of the City's Standard Urban Storm Water Mitigation Plan (SUSUMP) Ordinance as the threshold for "priority" parking lot projects. Therefore, one parking space was converted to 200 square feet of surface area. The frequency of sweeping was assumed to be once per year unless the department reported otherwise.

Analysis and Results

Responsibility for sweeping the parking lot area of large operations yards was distributed amongst facility tenants by department. Chollas Central Yard was swept by the Fleet Services Division (Fleet), Water Department and Street Division (Streets). Rose Canyon Maintenance Yard was swept by the Parks and Recreation Department (Park & Rec) and Fleet. The 20th/B Street Yard was swept by the Facilities Division, Parks & Rec, and Streets.[5] It was assumed that none of these parking lot sweeping activities overlapped geospatially. Therefore, rather than count the entire Chollas, Rose Canyon, and 20th/B street facilities as single parking lots (three (3) total), the area reported by each department was counted as an individual "parking lot" with an associated surface area. The 87 municipal parking lots swept and the 1,346 tons of debris collected during FY 2008 is associated with 12.5 million square feet (287 acres) of parking lot surface area.

[5] Streets swept the 20th/B Yard in June 2008 as a "favor" to the City of San Diego Storm Water Department. During this event, 4.7 tons of debris was swept from the facility and 7.92 tons of debris was removed during other yard clean up activities. Because Streets has no jurisdiction over the 20th/B Yard, they did not report the activity. No associated costs have been provided. Therefore this activity was not included in the "debris removed," "parking lot sweeping cost" or "number of parking lot" totals.

Recommendations

- Based on the assessment results from FY 2008, recommended Significant Activity modifications include developing a pilot project to study a sub-set of Municipal parking lots. JURMP required data do not provide enough information for the efficiency assessment goal of the Significant Activity. Specific recommendations are included in Appendix W, Activity 1.
- Based on the results from the FY 2008 assessment, recommended modifications to the assessment and data collection process are listed in Activity 1, Appendix W.
    - Additional data are needed to determine the optimal sweeping frequency of municipal parking lots. This will involve working closely with the Streets to track parking lot-specific data, including but not limited to the amount of debris removed from each parking lot, the frequency of sweeping, and the cost to sweep each parking lot.
    - Link analytic data from the WURMP street sweeping activities ongoing in the Mission Bay (Tecolote), Chollas and La Jolla watersheds to supplement data obtained from the Special Study. These data may be used to help estimate load reductions of specific pollutants often found in street sweeping debris.

Activity 2. Municipal Storm Drain Cleaning – Assess the Efficiency of Storm Drain Inlet / Catch Basin Inspections and Cleaning		
Management Questions	• What is the optimal frequency of storm drain system inspection (point of diminishing returns)? • What is the optimal frequency of storm drain system cleaning (point of diminishing returns)?	
Targeted Measurable Outcome(s)	• Achieve load reduction of debris (any amount) from storm drain cleaning • Achieve fewer storm drain backups and flooding due to clogged storm drains	
Data Recorded	Total number of storm drain catch basins/inlets (Outcome Level 1)	31,900
	Total number of storm drain catch basins/inlets inspected (Outcome Level 1)	11,193
	Total number of storm drain catch basins/inlets cleaned (Outcome Level 1)	14,058
	Total tons of debris removed from storm drain catch basins/inlets (Outcome Level 4)	433.97
	Frequency of storm drain inspections for each storm drain catch basin/inlet (Outcome Level 1)	Once per year
	Total number of storm drain catch basins/inlets contracted to be cleaned (Outcome Level 1 – determined during assessment)	9,415*
	Total number of storm drain catch basins/inlets inspected by contractor (Outcome Level 1 – used in assessment)	7,978*
	Total number of storm drain catch basins/inlets cleaned by contractor (Outcome Level 1 – used in assessment)	7,774*
	Total estimated tons of debris removed from storm drain catch basins/inlets (Outcome Level 4 – used in assessment)	57.7 tons

* The contractor reported that 1,437 of these systems either "do not exist" or "were not found." The contractor reported that 200 of these systems could not be cleaned due to health and safety issues.

Optimization of inlet/catch basin inspection and cleaning efficiencies is a long-term assessment; therefore a baseline assessment of the first year of data was completed. These results will be used to determine data requirements and relationships necessary for optimization in the future.

Methodology

Ten (10) departments provided data for storm drain inlet and catch basin inspections and cleanings during FY 2008.

Three divisions (Fleet, Parking Meters, and Facilities) elected to annually report the total weight of debris removed during annual storm drain catch basin/insert cleanings (reporting Option 1). Under Option 1, a division is not required to report the number of systems inspected or cleaned. Therefore, a relationship between the number of storm drain inlets/catch basins inspected and cleaned and the amount of debris removed during these cleanings could not be determined. The data reported by these three divisions was removed from analysis. Even if the data were included, it would not be useful to determine efficiency. These three divisions removed a total of 160-170 lbs of debris from the systems under their jurisdiction (Facilities reported an estimate of <10 lbs removed).

The Library Department reported the number of systems cleaned, but did not quantify the amount of debris removed. This data was incorporated into the total number of systems cleaned and inspected, but is excluded from the debris removed value. Given the small amount

of debris removed by the three divisions described above, this was not expected to impact the reported total debris removed.

Unless otherwise stated, the six (6) departments/divisions included in the complete assessment process were assumed to have contracted out storm drain inlet/catch basin inspection and cleaning work.

Streets is responsible for the maintenance of the storm drain network and non-municipal catch basin/inlets. Some of the work was completed by contractors. The storm drain catch basins/inlets cleaned by contractors were included in this analysis because they were comparable to activities conducted by other City departments. It was also the only data where the amount of debris removed could be correlated to the number of systems cleaned. Streets hand or vacuum cleaned storm drains (379.8 tons of debris removed) and storm channels (236.11 tons of debris removed). These data were provided as bulk numbers and could not accurately be applied to individual systems.

Analysis and Results

Streets contracted for 9,242 systems to be inspected and cleaned and for the debris removed to be characterized for each storm drain catch basin/inlet system (Table 12-3). During the two (2) month contract period 54.18 tons of debris was removed from 7,774 storm drain catch basins/inlets. Given the scope and scale of the cleaning activity, the amount of debris removed from each system cannot be accurately determined by dividing the weight of debris by the number of systems.

Table 12-3. Activity 2 Debris Characterization for Each Storm Drain Catch Basin/Inlet Cleaned by contractor hired by Street Division

Date	No. Systems Cleaned	% Plastic	% Paper	% Vegetation	% Soil	% Other
May 2008	3,540	1.3	11.1	30.5	56.4	0.5
June 2008	4,065	0.5	16.1	25.3	57.8	0.1

The 27 catch basins/inlets under the jurisdiction of the Airport Division were reported as “clean.” No debris was removed and therefore a cost benefit ratio or debris weight per system has not been estimated or reported.

A preliminary assessment of the amount of debris removed from each storm drain system (Outcome Level 4) has been completed for the remaining four City departments (Table 12-4). The Police Department is responsible for 57 catch basins/inlets; five systems were deemed clean. The reported average has been adjusted so that the two large catch basins and the five clean catch basins are not included (Table 12-4). The two large catch basins identified as outliers were excluded from the average debris removal calculations for Qualcomm Stadium.

Table 12-4. Activity 2 Debris Removed from a Single Catch Basin

City Department	No. Systems Cleaned	Average Debris Removed for a Single Catch Basin ± Std. Deviation (lbs)	Systems Deemed Outliers *(Avg. calc. adjusted to exclude outliers)*
Police	50	1.6 ± 0.97*	VFM#1 (15 lbs); VFM#11 (60 lbs)
Stadium	29	5.4 ± 1.3	S#1 (2,000 lbs); S#16 (50 lbs)
ESD	5	39 ± 34.4	
Fire	46	1.1 ± 0.3	

* Adjusted to exclude the two outliers and 5 clean systems (zero debris removed).

Recommendations

- Based on the assessment results from FY 2008, recommended Activity modifications are listed in Appendix W, Activity 2. In general:
  - A special study for a sub-set of storm drains should be developed to examine efficiency of storm drain cleaning and inspection more closely.
  - This Significant Activity should be split into two portions; efficiency of inspection of storm drains catch basin/inlets, and efficiency of cleaning of storm drain catch basin/inlets.
  - The special study design should include three (3) sub-sets of municipal storm drain systems (a control group, an inspections only group, and a cleaning only group). At least three similar storm drain systems should be selected for each sub-set of storm drain systems.
- Based on the results from the FY 2008 assessment, recommended modifications to the assessment and data collection process are listed in the Activity 2 table in Appendix W.
  - Additional data is needed to answer the management questions. Information collected should include the number and frequency of storm drains inspected and cleaned; the assigned cleaning frequency of the systems, and the amount of debris removed.

Activity 3. Setting Grading Limit at Construction Sites in the Storm Water Standards Manual – Assess the Efficiency of Current Construction Site Grading Limits		
Management Questions	• What is the optimal grading limit to reduce storm water runoff and downstream sedimentation from construction sites based on existing literature?	
Targeted Measurable Outcome(s)	• Reduction of pollutant loads due to grading limit improvements	
Data Recorded	• Total size of graded areas (Outcome Level 1 – used in assessment)	24 acres*

* Based on site information provided by MWWD.

Determining the optimal construction grading limits will require a long-term assessment, therefore a data review was implemented during FY 2008 for which preliminary baseline data were collected and assessed for gaps. The final conclusion of the assessment is that the assessment should be discontinued, and the inspections necessary to determine whether increasing the complexity of a construction site is linked to effective BMP implementation (see Appendix W, Activity 3 for details)

Methodology

Data from the Metropolitan Wastewater Department (MWWD) were used to begin evaluation of this Significant Activity

Analysis and Results

MWWD reported data for five non-Priority Development municipal grading projects. Four of the sites had high inspection priorities and therefore had to be inspected at least bi-weekly during the 2007/2008 wet season. The smallest site (0.002 acres) had a medium inspection priority and therefore had to be inspected at least monthly during the 2007/2008 wet season. The five projected graded a total of 24 acres of land and the average land area of a single site was 4.8 ± 4.3 acres. The data reported by MWWD for the four high priority inspection sites did not include the number and type of BMP implemented, or the implementation rate of those BMPs.

Recommendations

- Based on the assessment results from FY 2008, the recommended Significant Activity modification is to discontinue Significant Activity 3. The management question originally proposed under Activity 3 is subject to too many variables to be effectively answered as designed. The JURMP requirements will continue to be met regarding construction grading limits.

Activity 4. Inspection of Construction BMPs – Determine the Optimal Inspection–Enforcement Combination for Construction BMP Inspections		
Management Questions	• What is the optimal frequency and method of inspection of construction sites (point of diminishing returns)? • What is the optimal frequency and method of enforcement (point of diminishing returns)? - Do inspections increase the rate of BMP implementation? - Does this increased rate of BMP implementation affect load reduction? - Are spot inspections more effective than scheduled inspections? - Does education increase the rate of BMP implementation? - Does enforcement increase the rate of BMP implementation?	
Targeted Measurable Outcome(s)	• Achieve load reduction from optimized inspection rate and method • Achieve load reduction from optimized enforcement rate and method	
Data Recorded for MWWD Site Inspection Data	Total number of inspections (scheduled) (Outcome Level 1 – determined during assessment)	1,836
	Total number of satisfactory inspections (Outcome Level 1 – determined during assessment)	1,836
	Total number of deficient inspections (Outcome Level 1 – determined during assessment)	0
	Total number of follow-up inspections (Outcome Level 1 – determined during assessment)	0
	Total number of enforcement actions and/or stop work orders (Outcome Level 1 – determined during assessment)	0
	Percent of BMPs implemented in compliance with Permit at each site (Outcome Level 3 – determined during assessment)	100% *

* These results, as reported by MWWD, are not useful for assessment unless compared with sites not 100% in compliance.

The purpose of this assessment is to determine the optimal rate of inspection for construction BMPs.

Methodology

Data were provided by the DSD, Engineering and Capital Projects (ECP) Department, and MWWD.[6] During FY 2008 data requirements were deemed overly burdensome for DSD and ECP to report all the needed data for all construction projects in the City. The data that were provided were used for preliminary data review and assessment.

Analysis and Results

DSD reported 72 priority projects with permanent BMPs completed during FY 2008. ECP provided a comprehensive list of active and completed priority capital projects inspected under the construction program. Data provided by MWWD included: project inspection priority, number of weeks construction actively occurred on site (during wet weather) and number of inspections, inspection dates and status, and the number of hours the inspector was on site.

The management questions proposed for Activity 4 may be answered once a special study of representative construction sites has been implemented. None of the management questions can be properly answered at this time.

[6] Data will usually be provided by ECP and DSD. However, as occurred in FY 2008, the MWWD and Water Departments should report priority construction and grading projects under their jurisdiction during the fiscal year(s) the projects are active.

ECP field inspectors visited 26 public construction projects a total of 1,090 times a total of 427 active weeks of construction during the FY 2008 wet weather season. Field inspectors visited 29 public construction projects a total of 635 times during the dry weather period of FY 2008. None of the inspections revealed site conditions requiring advanced treatment BMPs and no "stop work" orders were issued as a result of these inspections. Five MWWD construction sites were visited by field inspectors a total of 99 times during 99 weeks of active construction during the wet season and four sites were visited a total of 12 times during the dry season. During FY 2008, 34 public construction sites were inspected a grand total of 1,725 times. Over average the inspector remained onsite 3.0 ± 1.4 at the four, MWWD, high inspection priority sites. The inspector remained onsite for one hour at the MWWD medium inspection priority site.

Recommendations

- Based on the assessment results from FY 2008, recommended Significant Activity modifications include developing a pilot project to study a sub-set of construction projects. JURMP data provide too many variables and types of "active" public and private construction projects to properly address the efficiency assessment goal of the Significant Activity. Specific recommendations are included in Appendix W, Activity 3. In general:
    - It is recommended that the management questions and implementation of Significant Activity 4 be modified and combined with portions of Significant Activity 3 to streamline efforts. A special study (Significant Activity 3) should be implemented.
    - Significant Activity 4 should be re-named Significant Activity 3.
- Based on the assessment results from FY 2008, recommended modifications to the assessment and data collection process are listed in Appendix W, Activity 3.
    - Additional data are needed to answer the management questions. Additional data sets include: number and type of education pamphlets passed out per site; cost of inspections (cost data provided should be more specific in terms of inspection type and associated field/reporting/follow-up activities); load reduction literature review; and information related to follow up inspections, stop orders and enforcement.

<table>
<tr><th colspan="3">Activity 5 – Industrial and Commercial BMP Inspections:
Determine the optimal inspection and enforcement combination for Industrial and Commercial BMP inspections</th></tr>
<tr><td>Management Questions</td><td colspan="2">• What is the optimal frequency and method of inspection of commercial and industrial facilities (point of diminishing returns)?
• What is the optimal frequency and method of enforcement (point of diminishing returns)?
- Do inspections increase rate of BMP implementation?
- Does increased rate of BMP implementation affect load reduction?
- Are spot inspections more effective than scheduled inspections?
- Does education increase the rate of BMP implementation?
- Does enforcement increase the rate of BMP implementation?
- Is there a correlation between the Industrial inspection questionnaire results and BMP implementation?</td></tr>
<tr><td>Targeted Outcome(s)</td><td colspan="2">• Achieve load reduction from optimized inspection rate and method
• Achieve load reduction from optimized enforcement rate and method</td></tr>
<tr><td rowspan="4">Data Recorded</td><td>Total number of facilities screened (Outcome Level 1 – used in assessment, raw data)</td><td>1,237 *</td></tr>
<tr><td>Total number of full inspections (Outcome Level 1 – used in assessment)</td><td>807 #</td></tr>
<tr><td>Total number of commercial facilities inspected with a priority (Outcome Level 1 – used in assessment)</td><td>515</td></tr>
<tr><td>Total number of industrial priority inspections (Outcome Level 1 – used in assessment)</td><td>292 ^</td></tr>
</table>

* There were 1,238 facilities provided in the raw data. L & C FOOD DISTRIBUTION INC underwent a full inspection during FY 2008, but it was later determined that the business had moved. It was listed twice therefore only 1,237 facilities were actually screened.
# Full inspections exclude those inspections that were not inventoried, were duplicates, or lacked follow-up contact due to move or vacancy of facility.
^ There were 293 inspections during FY 2008. This was adjusted because L & C FOOD DISTRIBUTION INC was double counted.

A significant activity was developed to evaluate the optimization of the inspection and enforcement combination for industrial and commercial BMP inspections. At this time, the data provide a baseline of information from which to build future assessments. The current results will be used to determine data requirements and relationships necessary optimization of the activity in the future.

Methodology

The Pollution Prevention Division provided inspection data pertaining to the jurisdictional investigations of industrial and commercial facilities within the City. This dataset included: business names and locations for commercial and industrial sites; inspection priority; date inspected; educational materials distributed by inspectors and material topics; and what each facility is doing to comply with the Storm Water Permit (training and BMP implementation).

Analysis and Results

The Pollution Prevention inspection data were the main focus of this analysis. No information was provided about the outcome of the inspections; therefore, the management questions could not be answered or directly addressed during this FY 2008 assessment process.

The Pollution Prevention Division screened 1,237 commercial and municipal facilities during FY 2008. A total of 808 facilities underwent a full BMP investigation. Data and analysis was conducted for 807 facilities. The business L & C Food Distribution, Inc. underwent a full

inspection, but it was later determined that the business had moved. The 430 facilities excluded were duplicates of other businesses, incorrectly classified because the NAICS code on the business license was not accurate, or not in the City's jurisdiction. Five of the facility evaluations were resolved via telephone, and therefore, did not constitute a site visit.

Recommendations

- Based on the assessment results from FY 2008, recommended Significant Activity modifications include developing a special study of a sub-set of representative industrial/commercial sites. This will allow the City to assess the efficiency of BMP inspections. JURMP required data do not provide enough information for the efficiency assessment goal of the Significant Activity. Specific recommendations are included in Activity 4, Appendix W.
    - Activity 5 should be re-named Activity 4.
- Based on the assessment results from FY 2008, recommended modifications to the assessment and data collection process are listed in Activity 4, Appendix W.
    - Additional data is needed to answer the management questions. Ensure collection of data identified in the updated Significant Activity Assessment table (Appendix W, Activity 4).
    - Include the number and types of BMPs implemented onsite. New BMPs recommended by the inspector should be tracked and reviewed during follow up investigations. Although some of the investigations provided data about educational materials, this data needs to be provided universally. If no materials were distributed, this needs to be indicated in the report.
    - Report the cost of inspections and hours an inspector was onsite. If illicit discharges were observed, before and after measurements of discharge are necessary to determine load reduction, and these results should be similarly broken down by facility and incident.
    - A common ID number between field inspections and Code Enforcement should be tracked.
    - Optimization of the efficiency of inspection and enforcement methods will depend on the correlation between actions taken as a result of incidents and the load reduction which follows.

Activity 6. IDDE Inspections and Enforcement – Determine the Optimal Sampling–Inspection–Enforcement Combination for the IDDE Program		
Management Questions	• What is the optimal frequency of inspection and enforcement components of the IDDE program? - What is the optimal turnaround time for responding to hotline calls? - What is the optimal number and location of sampling events to detect the most illicit discharges? • What is the load reduction associated with finding and stopping an illicit discharge?	
Targeted Measurable Outcome(s)	• Increased load-reduction to cost ratio for the IDDE program • Fewer observed illicit discharges when performing random inspections	
Data Recorded	Total number of potential illicit discharges (Outcome Level 1)	582
	Total number of illicit discharges eliminated (Outcome Level 1)	304
	Average time elapsed from a citizen's call reporting an illicit discharge to the time of the response (Outcome Level 1)	3 days

Optimization of illicit discharge inspection and elimination efforts as a result of hotline calls is a long-term assessment. Final assessment outcomes include the recommendation to modify the management questions. Please refer to Appendix W, Activity 5 for more details.

Methodology

The Pollution Prevention Division reported the number of hotline calls received on the Storm Water Hotline which resulted in a field investigation. This data set included: the date of the call and the investigation, caller, type of discharge, enforcement actions, and the address and location of reported discharge. The total number of hotline calls was not reported.

According to this analysis, an illicit discharge includes all types of discharges except nuisance irrigation discharges, nuisance water meter discharges, and other "exempt" discharges.

The data provided by the Pollution Prevention Division was subset to exclude field investigations which occurred before a call was received on the hotline, or for which a positive relationship (action was taken AFTER a hotline call, and not before) could not be determined (323 of 1,931 data points were excluded). Because citizens are the target group for hotline information outreach, a data subset of citizen hotline calls was analyzed. The total number of citizen hotline calls which resulted in a field investigation were filtered to exclude calls which resulted in no known discharge (120 of 759 citizen calls were excluded). This identified the 639 citizen calls that could potentially lead to the identification, enforcement, and abatement of an illicit discharge.

The City assumes that issuing a NOV will result in a change of activity which abates a discharge to the storm drain. Analysis for this Activity assumes that when a field investigator issued a NOV or NOV in conjunction with civil penalties, the discharge was abated. Other enforcement activities such as issuing letters or citations may also result in discharge abatement, but not necessarily for all dischargers. Therefore, a total number of discharges abated have been reported; however, the load reduction cannot be determined at this time.

Analysis and Results

After assessing the enforcement actions taken by the field investigators, only 631 calls could be directly correlated to the elimination of a potential illicit discharge (8 actions were labeled "no

evidence of discharge found"). Five hundred and eighty-two (582) hotline calls resulted in the positive identification of a non-exempt discharge to the storm drain. The enforcement actions taken by the field investigators are detailed in Figure 12-4. Three hundred and four (304) citizen hotline calls resulted in the issuance of a NOV or NOV with civil penalties. The number of illicit discharges eliminated by issuing NOVs had been broken down by type of pollutant in Figure 12-5. Construction waste (80) and waste water (61) were the two most common categories of pollutant discharges. Citizen hotline calls also resulted in the abatement of two (2) illegal connections and three (3) hazardous substance discharges.

Forty-nine non-illicit discharge events were identified in the field and enforced as indicated in Figure 12-6. Five (5) NOVs issued for non-illicit discharge: three (3) NOVs were issued for nuisance irrigation discharges and two (2) NOVs were issued for nuisance water Meter discharges.

The average time that elapsed from the day a citizen hotline call was received by the Pollution Prevention Division until the reported discharge was investigated was 3 days. It was assumed that NOVs were issued the day of the field investigation. The number of days delay until a hotline call was investigated and the illicit discharge was eliminated is shown in Figure 12-7. Most of the citizen hotline calls were investigated the day the call was received, so 162 illicit discharges were abated within 24 hours. 92.1% of the known illicit discharges were field investigated within a week of the initial call and 96.7% of the illicit discharges were investigated and eliminated within two weeks of the initial citizen hotline call.

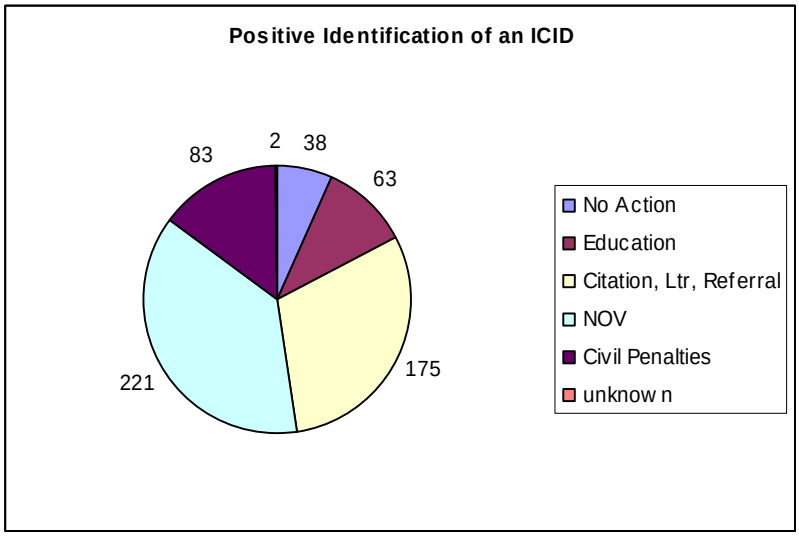

Figure 12-4. Activity 6 Citizen Hotline Calls for which Field Investigation Lead to Positive Identification of an Illicit Discharge, Separated by Type and Number of Enforcement Action

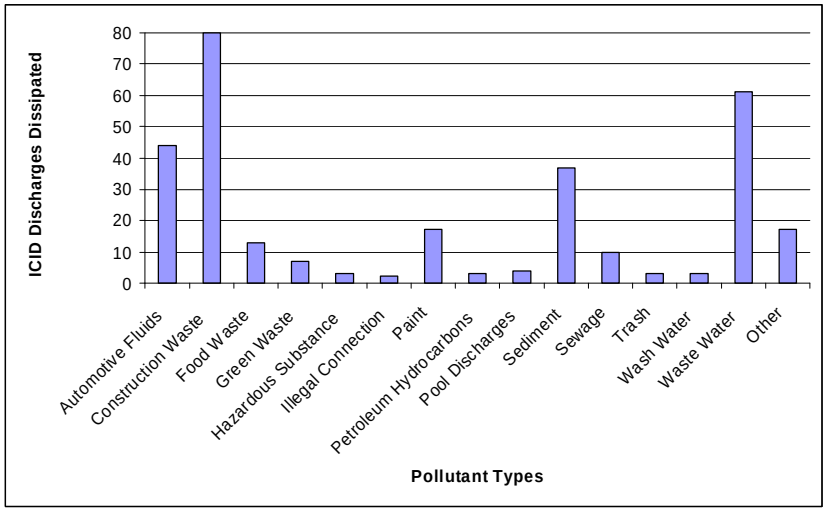

Figure 12-5. Activity 6 Number of Illicit Discharge Events Eliminated, By Pollutant Type

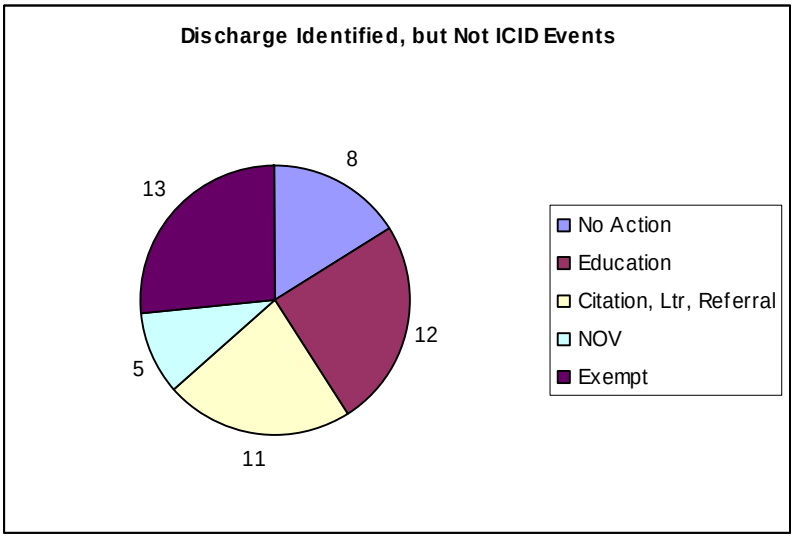

Figure 12-6. Activity 6 Citizen Hotline Calls for which Field Investigation Did Not Result in Positive Identification of an Illicit Discharge, Separated by Type and Number of Enforcement Action

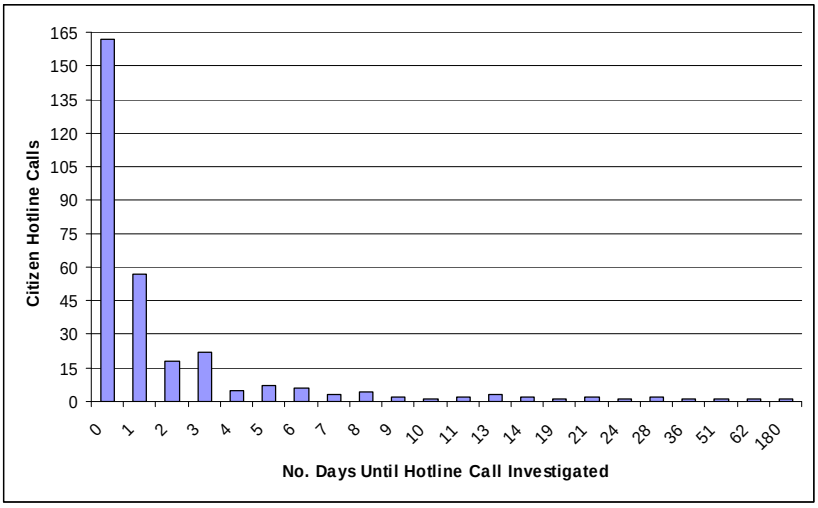

Figure 12-7. Activity 6 Delay until Illicit Discharge Abated by an NOV (Citizen Hotline Calls).

Recommendations

- Based on the assessment results from FY 2008, recommended Significant Activity modifications include integrating the data tracking efforts of the Storm Water Hotline and inspection programs. Specific recommendations are included in Activity 5, Appendix W.
    - Activity 6 should be re-named Activity 5.
- Based on the assessment results from FY 2008, recommended modifications to the assessment and data collection process are listed in Activity 5, Appendix W.
    - Track the cost of the hotline and inspection programs.
    - If available, additional field data should be reported along with the hotline call information, including the flow of water observed onsite and the pollutant concentration.
    - Associating hotline calls with field investigations should be tracked using the hotline identification number issued when a call is received (see Appendix W, Activity 5).

Activity 7 – Enforcement Inspections and Follow Ups: Assess the efficiency of the enforcements program		
Management Questions	• What is the load reduction efficiency of enforcement? • What is the most efficient enforcement method for the different geographic areas and source types? - Is it necessary to apply different enforcement methods to differing source types and geographic areas? • Is it more efficient to have staff on-call or operating 24/7? • Is it more efficient to respond to reported discharges or patrol for discharges? • What is the load reduction associated with finding and stopping an illicit discharge?	
Targeted Measurable Outcome(s)	• Load reduction due to enforcement • Load reductions in target source types or geographic areas	
Data Recorded	Total number of hotline calls (Outcome Level 1 – determined during assessment)	1,931
	Total number of hotline call investigations (Outcome Level 1 – determined during assessment)	1,608
	Total number of patrol-based investigations followed up by hotline calls (Outcome Level 1 – determined during assessment)	323
	Hotline call investigations where discharge identified (Outcome Level 1 – used during assessment)	1,382
	Hotline call investigations where illicit discharge eliminated (Outcome Level 1 – used during assessment)	726
	Number of regions where hotline investigation conducted (by zip code) (Outcome Level 1 – used during assessment)	35

Optimization of enforcement activities for hotline calls is a long-term assessment, and therefore a data review and baseline assessment was completed. The last two management questions were used at the focus of this assessment process. Modifications to this activity are recommended, and details can be found in Appendix W, Activity 6.

Methodology

The Pollution Prevention Division reported the number of hotline calls received on the Storm Water Hotline which resulted in a field investigation. This data set included: the date of the call and the investigation; caller; type of discharge; enforcement actions; and the address and location of reported discharge. The data provided by the Pollution Prevention Division was subset into two groups; hotline calls resulting in field investigations (hotline investigations) and hotline calls that occurred after a field investigation was complete (patrol investigations).

The 323 patrol investigations were identified by comparing the field investigation date and hotline call date. If the field investigation date was blank, it was assumed to be a patrol investigation.

Although the load reduction associated with hotline call investigations could not be quantified, the number of discharges abated was determined. The City assumes that issuing a NOV will result in a change of activity which dissipates a discharge to the storm drain. Analysis for this Activity assumes that when a field investigator issued a NOV or NOV in conjunction with civil penalties, the discharge was dissipated. The results were determined by filtering the hotline investigations by events that resulted in a discharge, and then the NOV enforcement action.

Analysis and Results

During FY 2008, City staff field investigated 1,608 hotline calls and 323 hotline calls were associated with patrol-based field investigations. The breakdown of enforcement actions is shown in Figure 12-8. Hotline investigations resulted in 1,279 actions and patrol investigations resulted in 298 actions.[7] Although hotline investigations are 15 times more likely to result in a failed investigation (no identified discharge, identified exempt discharge, no action to be taken), 21 patrol-based investigations still led to no action. Patrol-based field investigations followed up by a hotline call should also be field investigated, because these calls may help identify chronic discharges and problems.

There were 1,382 hotline calls that resulted in positive identification of a discharge during FY 2008. Seven hundred and twenty-six (726) discharges reported to the Storm Water Hotline were abated: 575 NOVs were issued for illicit discharges,[8] 145 civil penalties were issued for illicit discharges, and 6 NOVs were issued for non-illicit discharges (nuisance irrigation and nuisance water meter discharges).

Thirty-five regions (zip codes) in San Diego were linked to a positive identification of a discharge. During this preliminary study, the five zip codes with the most field confirmed discharges were: 92109 (105 discharges), 92101 (96 discharges), 92117 (81 discharges), 92037 (81 discharges), and 92103 (73 discharges).

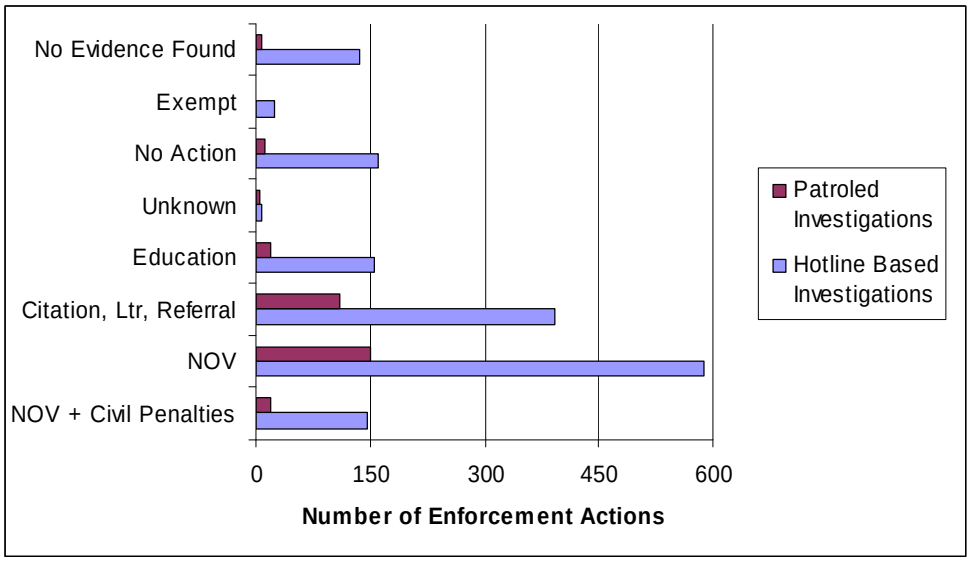

Figure 12-8. Activity 7 Enforcement Actions by Investigation Type and Enforcement Action

Recommendations

- In order to determine the most efficient and effective programs overall, the cost of the hotline and inspection programs should be tracked.

[7] Enforcement actions include education, letters and citations, referral to another City department, issuances of a NOV and/or civil penalties.
[8] An IDDE includes all types of discharges except nuisance irrigation discharges, nuisance water meter discharges, and other "exempt" discharges.

- To quantify the load reduction associated with field investigations, the flow of water observed onsite and the pollutant concentration should be associated with the investigation and hotline call.
- Drop assessment of the management question associated with 24-hour hotline, versus a business-hours only hotline, versus a "random" schedule hotline schedule
- Implement a special study to track and report hotline calls, field investigations, enforcement actions, and associated costs.
- The most efficient and beneficial study should target the five zip code areas where hotline calls resulted in positive identification of a discharge in the field (see Appendix W, Activity 6).

Recommendations

- Based on the assessment results from FY 2008, recommended Significant Activity modifications include developing a special study to study to correlate hotline calls, field investigations, enforcement actions, and associated costs. Specific recommended Significant Activity modifications are included in Activity 6, Appendix W.

- Based on the assessment results from FY 2008, recommended modifications to the assessment and data collection process are listed in Activity 6, Appendix W.
    - Drop assessment of the management question associated with 24-hour hotline, versus a business-hours only hotline, versus a "random" schedule hotline schedule.
    - In order to determine the most efficient and effective programs overall, the cost of the hotline and inspection programs should be tracked.
    - Field investigators should report the volume of water discharges that was observed onsite.
    - The pilot study should target the five zip code areas where hotline calls resulted in positive identification of a discharge in the field.
    - To quantify the load reduction associated with field investigations, the flow of water observed onsite and the pollutant concentration should be associated with the investigation and hotline call.
    - Activity 7 should be re-named Activity 6.

Activity 8 - Public Outreach: Evaluate efficiency of outreach methods by comparing load reductions before and after outreach		
Management Questions:	• What is the optimal frequency and method of education and outreach (point of diminishing returns)? • Is it possible to observe a decrease in illicit discharges in areas specifically targeted for outreach?	
Targeted Measurable Outcome(s)	• Increased public participation in storm water pollution prevention • Decreased rate of observed illicit discharge in targeted geographic areas	
Data Recorded	Number of inspections (Outcome Level 1)	In process
	Number of illicit discharge observations pre- and post-outreach (Outcome Level 3)	In process
	Estimated load reduction based on observations of illicit discharge (Outcome Level 4)	In process

Assessing the efficiency of education outreach efforts is a challenging task. Detection of the effects of education outreach is masked by the number of confounding factors and unknown variables. The focus of this assessment discussion is management question number two. (Is it possible to observe a decrease in illicit discharges in areas specifically targeted for outreach?) The information presented for this activity assessment was gathered through a WURMP activity, and is presented here purely as a means to show how information can be used to gain understanding of the effectiveness and efficiency of education and outreach.

Methodology

Data for this assessment were provided by the Education Section of the Pollution Prevention Division. The data were collected as part of a WURMP pilot project entitled: "Community Based Social Marketing Pilot in Residential and Business Areas of La Jolla," Activity Research, Inc 2008. The first part of the pilot has taken place (initial observations and surveys). The second and third parts of the pilot, outreach and the "after" survey have yet to be completed.

Analysis and Results

The analysis for this activity was completed prior to reporting, by Action Research, Inc., and the following includes a brief overview of the analysis and results. The pilot included two end user groups suspected of contributing to nuisance runoff that may contribute to bacteria problems found downstream (in the La Jolla ASBS); Residents and Business owners. Pre-educational observations were collected by Coast Keeper. The following results were obtained (Action Research, 2008)

- Business Observations: 1,846 polluting events were observed, and the most prevalent were trash and cigarette butts.
- Residential Observations: 1,127 polluting events were observed, and the most prevalent were litter and trash. Pet waste was frequent, at 53 separate instances observed

Survey response was high for both groups; in-person surveys for the Business group and mail surveys for the Residential group. A total response rate of 80% (for business owners/managers) was observed. The business owner/managers agreed to in-person brief interviews and revealed that "watering plants with a hose" and "hosing behind the business" were frequent activities that owners engaged in or observed. Sixty-two (62) percent of the

Residential group responded to the mail surveys (119/192). Assessment of these results is currently underway.

Recommendations

- Based on FY 2008 assessment results, it is recommended that this significant activity be discontinued as a Significant Activity, and results reported through the WURMP pilot project program. However, data collected as a result of this pilot project may be used to help target future education planning through the JURMP program. This activity will continue to be implemented as a WURMP activity.

Activity 9 – Public Outreach: Determine the most efficient methods for increasing public participation in reporting discharges via hotline		
Management Questions	• What is the most efficient method of integrating public outreach and hotline responses? • Which public outreach method results in the most reported discharges per dollar? • Which outreach method results in the most abated discharges per dollar?	
Targeted Measurable Outcome(s)	• Achieve increased rate of hotline calls from public outreach efforts • Achieve increased rate of illicit discharge abatement	
Data Recorded	Total number of hotline calls received (Outcome Level 1 – determined during assessment)	1,931
	Total number of people targeted by public outreach events where hotline information known to be distributed (Outcome Level 1 – determined during assessment)	1.9 million

The management questions posed for Activity 9 cannot be answered during FY 2008, but a preliminary data assessment was conducted in preparation for the next four years.

Methodology

The Pollution Prevention Division reported the number of hotline calls received on the Storm Water Hotline which are associated with a field investigation. This data set included: the date of the call and the investigation; caller; type of discharge; enforcement actions; and the address and location of reported discharge. Individual City departments also provided information about their public outreach activities and associated costs.

Public outreach data provided by the Storm Water Department, Qualcomm Stadium and ESD was also included in this assessment.

Analysis and Results

The Pollution Prevention Division sponsored multiple events which targeted over 1.5 million people during FY 2008 (Table 12-5). Pollution Prevention also partnered with other City Departments, such as Qualcomm Stadium and ESD to promote good storm water practices and provide education about BMPs and the Storm Water Hotline. These partnership activities targeted 360,000 people.

Table 12-5 Activity 9 City Sponsored Storm Water Outreach Events by Number, Type, and People Targeted

City Department	Type of Storm Water Public Outreach Event	Number of Events	Number of People Targeted at Event
Storm Water (Think Blue)	Booths	10	1,574,750
Storm Water (Think Blue)	Presentations	3	100
Storm Water (Think Blue)	Surveys	1	1,355
Qualcomm Stadium	Think Blue message on Marquee	20	50,000
Qualcomm Stadium	Brochure (storm drain protection)	1	10,000
ESD	Winter 2007 Edition of "Curbsider"	1	300,000

Recommendations

- Based on the assessment results from FY 2008, recommended Significant Activity modifications include developing a pilot project to track and report hotline calls, education efforts, and associated costs. JURMP required data do not provide enough information for the efficiency assessment goal of the Significant Activity. Specific recommendations are included in Activity 7, Appendix W.
    - Activity 9 should be re-named Activity 7.
- Based on the assessment results from FY 2008, recommended modifications to the assessment and data collection process are listed in Activity 4, Appendix W.
    - After reviewing the hotline data, a data recording gap between the hotline call and how the caller obtained the hotline number was identified. During the next four fiscal years, the Storm Water hotline call questionnaire should be updated to include the following questions:
        - How did you hear about the hotline?
        - What is your house zip code?
    - When combined with the geographic data already reported for the alleged discharge, correlations may be drawn between hotline calling, discharges, and educational efforts. See Appendix W, Activity 7 for details.

12.2.2 Significant Activity Assessment Updates

Although the compliance and load reduction data used in the FY 2008 Significant Activity Assessments are adequate for showing compliance with the Municipal Permit, and to a further extent effectiveness, additional information from special studies or WURMP activities is necessary to answer the management questions presented in the Significant Activity assessments. To address these data needs, the City has initiated multiple WURMP pilot projects that include collection of targeted data for load reductions and activity costs (see project list below). These pilot projects are also focused to answer specific management questions as part of the overall Storm Water Pollution Prevention Program. The City plans to use the following WURMP projects to achieve greater load reductions and obtain necessary load reduction and efficiency data that will feed directly back into the JURMP program.

The management questions presented in the FY 2009 assessment tables (Appendix W) represent the potential range of questions that will be assessed. The number of Significant Activity assessments and questions themselves may be modified depending on what data can be practically collected and the priority of the question. Questions may also be modified based on the evaluation of the data during the year. Periodic data evaluations will be conducted to determine if the assessment is on target to address the question or if it indicates modification of the question. As discussed in this section, these management questions will be addressed using data from the JURMP significant activities and the pilot WURMP projects. The pilot WURMP projects have been targeted to assist in assessment of the management questions by taking advantage of the link to JURMP activities and the greater ability to target data collection and management under pilot projects managed through the Storm Water Department.

A summary of the WURMP pilot projects that will be implemented and provide additional data for JURMP significant activities are listed below:

- **Community Based Social Marketing (CBSM) Program (Linkage to JURMP Outreach Activities)**
  In order to enhance and improve behavioral change through the outreach and education programs, the City has initiated this CBSM program. The program uses proven techniques to identify the barriers for behavioral change and the changes that will most likely result in pollutant load reductions. Pilot projects have begun in 2008 in La Jolla Shores ASBS Watershed, targeting residential behaviors that lead to urban runoff and bacteria loading.

- **Code Modifications (Linkage to JURMP Inspection and Outreach Activities)**
  These are modifications to existing codes for the requirements for commercial business compliance with the storm water regulations, using a defined list of baseline BMPs. This code modification provides the tool for linkages to outreach and enforcement activities that can use this baseline BMP list to educate businesses on the measures to be taken, and to aid enforcement officers with a defined list of required BMPs. Specific programs are planned by the City to target high priority sources in high priority sectors with this integrated additional education and enforcement program which include a data collected activity for program assessment.

- **Runoff Reduction Ordinance (Linkage to JURMP Enforcement and IDDE Activities)**
  The City passed modifications to its Storm Water Management and Discharge Control Ordinance (M.C. Section 43.03 et seq.), prohibiting the discharge of urban runoff from activities such as over-irrigation, damaged irrigation systems, hosing down of paved areas, and other activities. Enforcement of the Ordinance will begin next year after outreach efforts have allowed for education of residences and commercial businesses. This Ordinance will work effectively with increased enforcement to significantly reduce urban runoff and the associated pollutant loading, along with planned projects over the next 2-3 years to provide incentives to install more efficient “smart” irrigation systems and use of drought tolerant plantings.

- **Aggressive Street Sweeping Project (Linkage to JURMP Street Sweeping Program)**
  Implementation of this project began in 2008 and includes the purchase of vacuum assisted and regenerative air sweepers, training of the drivers on the new equipment, and initiation of new sweeping program in three watersheds. The new sweepers are being assessed with traditional mechanical sweepers and at difference frequencies to provide the assessment data on load reductions and efficiency, which can be used to better assess the jurisdiction program.

- **Air Deposition Study and Street Sweeping (Linkage to JURMP Street Sweeping Program)**
  The City is conducting a second phase in 2008 of the air deposition study which includes assessing the contribution of air deposition to water quality, the rate of deposition and the variation between heavily travel corridors and light residential traffic areas. These data will provide for important assessment of the effectiveness of pollutant removal by street sweeping in these different traffic use areas.

- **Dry Weather Program Data Management System (Linkage to JURMP IDDE Program)**
  The City is investing in an enhanced data management system that can collect standardized and additional data in the field using field electronic note-books with standardized field data sheets. This system also allows for collection of data for assessing repeated sources and causes of action level exceedances. This data system includes a query tool that will aid the City identify high priority issues and help with management questions regarding storm drain cleaning frequency.

- **Bacteria Source Identification Studies (Linkage to JURMP Catchment Basin Cleaning and Outreach and Enforcement Programs)**
  Bacteria Source investigations have been completed in 2008 in Tecolote Creek Watershed to verify the pollutant loading potential of the high threat to water quality sources of bacteria. This study has resulted in recommendations regarding runoff reduction programs and inspection programs. A phase II study is underway, and includes the assessment of catchment basins as a potential source and development of recommendation for frequency of cleaning.

- **Increased Inspections and Assessment Data Collection (Linkage to JURMP Inspection Program)**
  A program of increased inspections of targeted high threat to water quality sources, initiated in 2008, targeted eating and drinking establishments in high priority sectors. Additional increased inspection programs have been initiated to target these sources that have a higher potential for pollutant loading. Data collected from these programs are being used to assess increased behavioral changes and estimated load reductions.

This integration of the JURMP and WURMP program activities is consistent with the City's 5-Year Watershed Activity Strategic Plan (Strategic Plan, http://www.sandiego.gov/thinkblue/programreports/index.shtml) that uses an integrated and tiered approach to BMP implementation and achieving the load reduction goals of the Municipal Permit and TMDLs. The Strategic Plan applies a tiered implementation strategy that includes the following three tiers:

- Tier I – Source Control and Pollution Prevention, Product Substitution, Education/Outreach and Enforcement
- Tier II – Street Sweeping, Runoff Reduction, and Low Impact Development
- Tier III – Structural Treatment BMPs

The JURMP activities are an integrated part of this overall strategy as they are the foundation of many of the Tier I (outreach, education and inspection) and Tier II (street sweeping) activities. The WURMP activities build from this foundation and implement additional and more aggressive approaches to achieve behavior changes and load reductions with the overall goal of improved water quality in the receiving waters. Therefore, the City is moving forward aggressively to implement the pilot programs as listed above to achieve these goals and learn over this Municipal Permit cycle which activities, or combination of activities can be used to most cost effectively achieve these goals.

12.3 PROGRAM RECOMMENDATIONS

This section identifies program recommendations and future directions the City should take its programs as a result of the information gathered and analysis completed as part of the program assessment.

As stated in Section 12.1.2, the City views the JURMP, WURMP, and other programs as an integrated program necessary to ensure improved water quality in the regions creeks, rivers, beaches and bays. As a result of the FY 2008 Program, Component and Significant Activity Assessments, and as a result of numerous policy discussions with stakeholders, Regional Board staff, and internal City staff, the City has identified program modifications and policy recommendations for FY 2009 (additional discussion is provided in Section 14, Conclusions and Recommendations).

These recommendations include continuing to align the JURMP program with the policies recommendations outlined below. The policy recommendations have been developed over the past year to ensure that the City correctly targets the water quality problems of greatest concern, and continues to leverage information gained across programs to make management decisions that will guide the City toward improved water quality with the greatest efficiency possible.

In addition, it is important to note that the FY 08 JURMP Assessment does not recommend significant or wholesale modifications to JURMP components or activities. Instead, as outlined in the Long-Term Program Effectiveness Assessment Process in Figure 12-3, the City is refraining from initiating significant changes to JURMP activities until activity efficiencies are determined through pilot projects being undertaken as part of the WURMP programs over the next five years. However, the City has instituted minor adjustments to activities in response to potential deficiencies identified during the course of the year or during analysis of the JURMP annual report data. These minor adjustments are documented in Table 12-1 (pages 7-8).

Policy Recommendations:

- Continue Implementation of Five Year Watershed Activity Strategic Plan
  The completion of the City's plan to meet the Municipal Permit and TMDL goals using an integrated, tiered and phased approach has been completed. Phase I implementation is successfully underway and integrates watershed activities with the JURMP activities which provide a foundation for the tiered BMP program. JURMP activities link to the watershed activities under the Tier I and Tier II BMP implementation strategy.

  - Pilot/Phase I WURMP Activities
    Implementation of the 5-Year Strategic Plan was initiated in 2007 and has included development and implementation of Tier I and Tier II BMPs that include increased targeted inspections, source identifications studies, targeted education/outreach programs using Community Based Social Marketing, aggressive street sweeping in three watersheds, over 20 concept designs for LID and pilot treatment projects, support of brake-pad partnership, and runoff reduction Ordinance. The data that is being collected under these watershed pilot projects is being used for the assessment and enhancement of the linked JURMP programs.

- Integrated TMDL Approach
  The City is taking an integrated approach to meeting TMDL requirements consistent with the enhanced JURMP assessment that includes both load reductions and efficiency, and the phased approach to implementation of the Tiered BMPs outlined in the 5-Year Strategic Plan. The integrated TMDL approach considers both current and anticipated TMDLs within the watershed in the implementation of tiered BMPs to address pollutant load reductions. This approach is more cost effective in that BMPs are implemented to address the multiple pollutants of concerns rather than requiring expensive retrofitting as single pollutant TMDLs are implemented in the future. The integrated watershed TMDL approach is also phased to allow for the assessment of the effectiveness and efficiency of the BMPs to address the multiple pollutants prior to implementing a wide-spread and aggressive implementation of BMPs that may not be effective. The JURMP links to this approach as it provides a foundation for the Tier I and II BMPs and uses the overall program assessment results to improve the effectiveness of the JURMP activities.

- Storm Water Fee Initiative
  The City recognizes that in order to meet existing and anticipated storm water regulations, such as TMDL programs, Areas of Special Biological Significance requirements, and increased requirements of the 2007 Municipal Permit, the City must secure increased dedicated funding. The Storm Water Department is evaluating options and approaches to increasing the current storm water fee in the City in order to implement the program that has been outlined in the Strategic Plan and estimated for the next 20 years.

- Continued Emphasis on Regional Think Blue Campaign
  The City's award-winning Think Blue campaign is an aggressive outreach/education program that includes a series of television commercials to increase the understanding of the importance of water quality in the region and the actions that citizens can take to address storm water pollution and reduce urban runoff. The City updated the Think Blue moniker in FY 08 to position this program to continue to be a leader in storm water education and outreach nationwide.

12.4 LONG-TERM ASSESSMENT RESULTS

Water quality and integrated assessments will be performed at long-term intervals (every five years), and the results will be presented in the Annual Report. These assessments will include information collected from regional, watershed, jurisdictional, and Municipal Permit-required programs (e.g., TMDL programs) and will be compiled and assessed for areas within the City's jurisdiction. In the future, MS4 and receiving water data will be analyzed separately to assist in the development of Outcome Level 5 and 6 assessments. This will also aid in the five year regional long-term assessment. Qualitative assessments will also be completed.

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13 JURMP REVISIONS

13.1 JURMP REVISIONS

In order to improve the efficiency and effectiveness of the City's efforts in protecting and improving water quality, the City updated its JURMP in March 2008. The changes not only ensure compliance with Order R9-2007-0001, but in many cases exceed the minimum requirements in the Municipal Permit as the City continues its efforts to protect the beneficial uses of its receiving waters and reduce the pollutant loads from its known sources. The revisions to the City's 2008 JURMP are summarized in Table 13-1 below and specific language changes are in Appendix Y.

Table 13-1 FY 2008 Summary of JURMP Revisions

Section	JURMP Revisions
Development Planning	– Revision to Activity-Specific Training (Appendix Y)
Construction	– Revision to Activity-Specific Training (Appendix Y)
Municipal	– ESD revised Activity-Specific BMPs (Appendix Y)

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14 CONCLUSIONS AND RECOMMENDATIONS

14.1 SUCCESSES AND CHALLENGES

14.1.1 Successes

The City's Pollution Prevention Division annual budget was increased in FY 2008 to $23.4 million from its FY 2007 budget of approximately $13.5 million. The City's Pollution Prevention Division achieved significant benefits to water quality beyond its budget by leveraging special projects. Specifically, the City received approximately $11.8 in grant funds, supplemented by approximately $2.7 million in City and partner agency matching funds. The grants helped further the City's clean water efforts in San Diego Bay, San Diego River, Chollas Creek, and Mission Bay.

Special projects (data gathering efforts) are an integral tool in the City's effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. Special studies at Mission Bay Park and the mouth of the San Diego River have resulted in the implementation of bacteria source abatement projects. In addition to these water quality improvement projects, the Pollution Prevention Division also participated in six TMDL programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems. Details are included in the WURMP Annual Reports associated with those watersheds.

In addition to the above mentioned special projects, the Pollution Prevention Division achieved many other successes in implementing the JURMP in FY 2008.

- Completed the ASBS No. 29 and No. 31 – Integrated Coastal Watershed Management Plan and the Rose and Tecolote Creeks Water Quality Improvement Project (see Mission Bay and La Jolla FY 2008 WURMP Annual Report for further details).
- Completed the Chollas Creek Water Quality Protection and Habitat Enhancement Project (see San Diego Bay FY 2008 WURMP Annual Report for further details).
- Completed the revisions of the City's JURMP in accordance with Order 2007-0001. The City's 2008 JURMP was submitted to the SDRWQCB on March 24, 2008. The City's 2008 JURMP was adopted by the City Council on January 22, 2008.
- Completed new departmental annual reporting forms to assist in data collection for the City's JURMP Annual Reports.
- Eliminated 4 illicit connections in FY 2008.
- Continued its efforts to seek out and abate illegal discharges and was responsible for issuing 902 notices of violation, 277 citations, and 164 civil penalties.
- Completed the revision of the City's *Storm Water Standards Manual* in FY 2008 to reflect new requirements in the Order 2007-0001.
- The City's *Think Blue* messages to the general public made approximately 55,424,513 impressions through PSA airtime, free placement on media websites, billboards, mall signs, and transit shelters.
- The City's *Think Blue* storm water education campaign reached approximately 996,400 individuals through special events.

Through the efforts of the Pollution Prevention Division and other City staff, there has been a reduction in the percentage of beach advisories and closures per total beach mile days possible over the last six years (see Figure 14-1). In addition to reducing beach postings, the City has also reduced the number of sewage spills between 2000 and 2007 (see Figure 14-2).

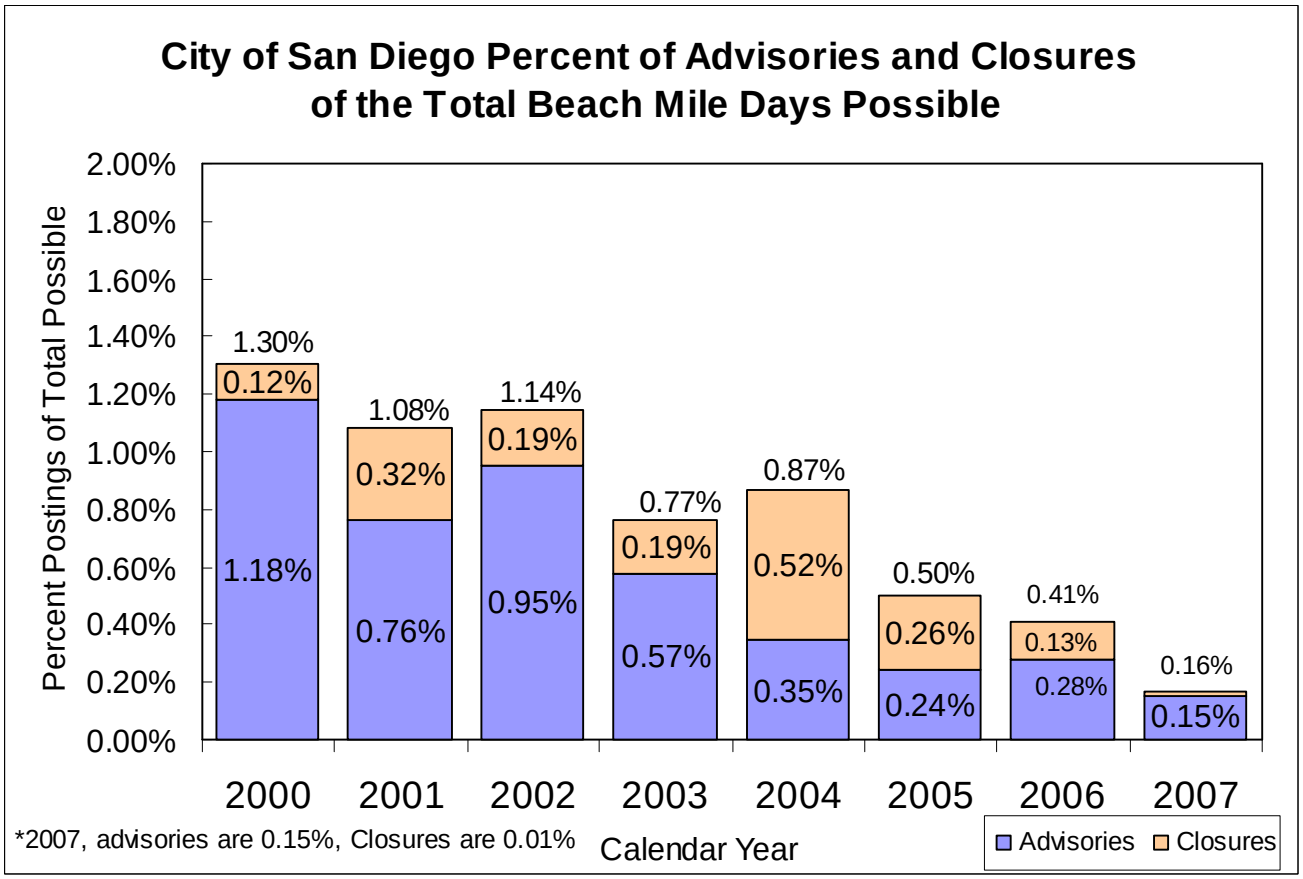

Figure 14-1. Beach Posting and Closures in the City Between 2000 and 2007.

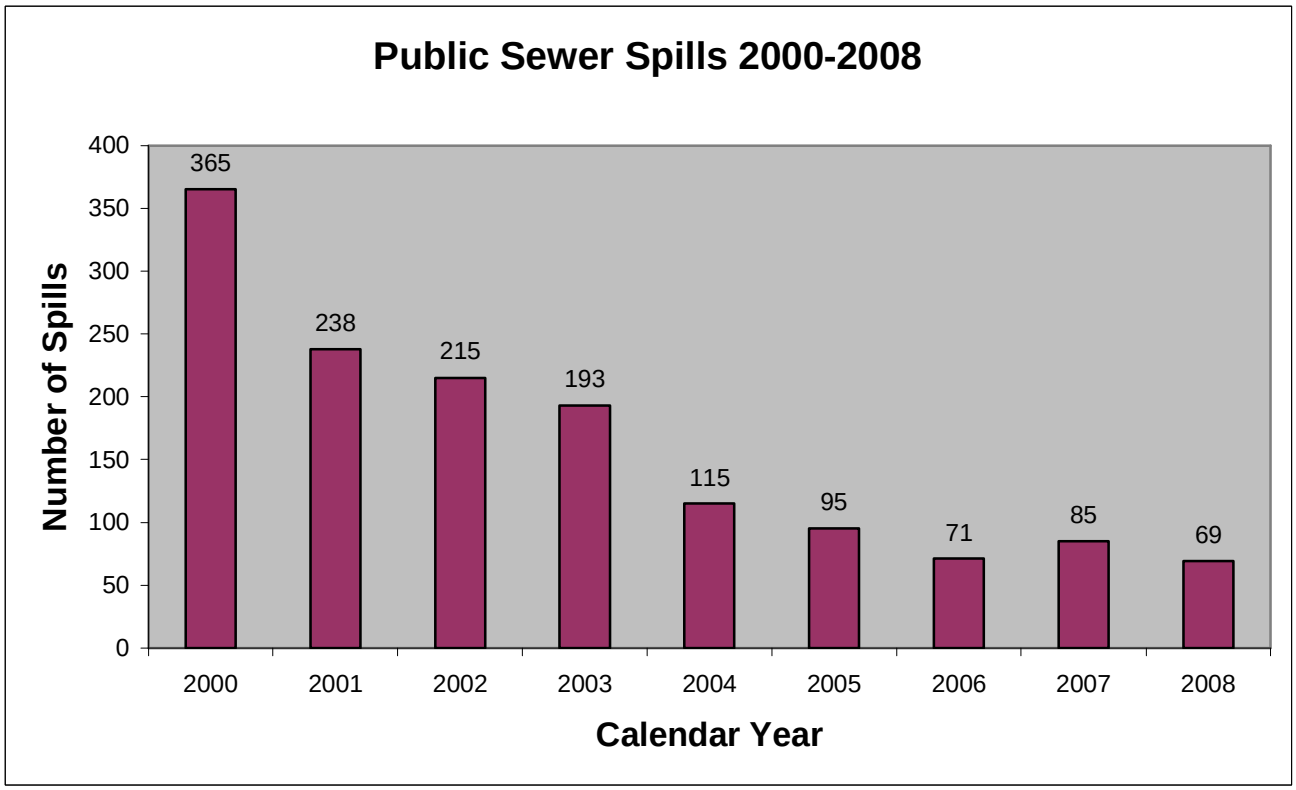

Figure 14-2. Number of Public Sewer Spills in the City between 2000 and 2008.

14.1.2 Challenges

In addition to the Municipal Permit, the City must also simultaneously comply with the requirements of other regulatory programs, such as ASBS, TMDLs, and Cleanup and Abatement Orders (CAOs). Although these regulatory programs are separate from the Municipal Permit, their ultimate goal is the same—the improvement and protection of the region's water quality. The convergence of these regulatory programs mandates that the City devote resources to advance planning efforts and nurture even stronger bonds and partnerships with other stakeholders in the region to achieve its goal of improved water quality. A discussion of the City's advance planning efforts is provided in Section 14.2, Future Recommendations.

The City faces significant challenges in effectively gathering and managing storm water program data. With a growing population of over 1.2 million residents and 237 square miles of urbanized development, the City is larger than other jurisdictions in the region. The enormity of the data management challenge is something the Pollution Prevention Division and other departments are continually working to improve. For example, the DSD must manage data from approximately 80,000 inspections per year. To address the need for effective data management capabilities, the Pollution Prevention Division completed a division-wide data needs assessment and began developing an integrated database and software system in FY 2008. The system will be designed to manage storm water data and pilot projects City-wide. The data gaps and collection procedures identified during the development of this Annual Report will be modified to assist in activity and program effectiveness assessment. DSD also enhanced its inspection database in FY 2008. Furthermore, standardization of data collection, more meetings with departments outside of Storm Water, and refined management questions will enable the City to more effectively assess the significant activities during the FY 2009 reporting period.

As a result of Order 2007-0001, and because in a limited number of instances municipal facility were not formally inspected, the City increased the inspection frequency for municipal facilities. FY 2009 will be the first full year of implementation where each municipal facility should be inspected twice. In order to ensure that inspections are conducted in accordance with the City's 2008 JURMP, the Pollution Prevention Division sent out a memorandum to all departments in September 2008 reminding staff of the inspection requirements for municipal facilities. Pollution Prevention Division staff will also be conducting walk-along inspections with the departments and will continue to send out reminders to the departments about permit responsibilities.

14.2 FUTURE RECOMMENDATIONS

To continue to improve program efforts, the Pollution Prevention Division has identified four major program goals, as detailed below.

1. *Continue integrated strategic approach to program planning and implementation (Municipal Permit, ASBS, and TMDLs).* The City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, TMDLs, ASBS, and CAOs. By setting stringent water quality standards that the City must meet, these regulatory programs in effect mandate the implementation of structural (e.g., capital improvement projects) and non-structural (e.g., education and outreach, street sweeping) activities. Given that these regulatory programs essentially require similar, parallel efforts, careful program coordination is needed to avoid unnecessary overlapping efforts, wasted resources, and loss of time. Therefore, the City is employing an integrated approach towards meeting the requirements of these regulatory programs simultaneously. The Pollution Prevention Division began planning for an integrated approach to implementation called the "Strategic Plan for Watershed Activity Implementation" in FY 2006 and continued to employ this "Strategic Approach" in FY 2008. Although initially the focus will be on the City's watershed-based programs and activities (particularly in the Chollas Creek, Tecolote, and Rose subwatersheds), implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as knowledge is gained from the watershed-based efforts may be implemented City-wide. The City will continue efforts to maximize efficiencies of programs and activities through assessment of pilot project efforts.

2. *Study needs and options for storm water-dedicated funding sources.* Staff continued to study long-term, dedicated funding mechanisms in FY 2008, including an increase in the current storm drain fee, to support the anticipated increase in the City's storm drain and water quality protection program efforts in coming years. This effort included analysis of projected program needs. However, over the near term, the City will continue to pursue short-term alternative funding sources, such as grants, for urban runoff management and water quality protection. Currently, the City is benefiting from a number of grant-funded projects that will reduce pollutants. The City will also continue to partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding. Staff will continue to work closely with the other storm water program managers in the region to collaborate on program implementation strategies. It is the City's objective to institute the most effective and efficient strategies in the San Diego region to clean and protect its creeks, beaches, and bays for future generations.

3. *Improve data management, reporting and assessment.* Also important, the City will be working with the other Copermittees in refining their reporting and effectiveness assessment standards to facilitate cross-jurisdictional and cross-programmatic comparisons and evaluations. The refined standards will lead to a more regionally-integrated approach to water quality improvement efforts. In addition to continued inter-jurisdictional cooperation, the Pollution Prevention Division will continue to increase coordination with other City departments to ensure permit compliance and data collection. The Pollution Prevention Division will continue to look for methods to modify and improve data gaps and collection procedures to assist in activity and program effectiveness assessment.

4. *Refine municipal inspection program.* The Pollution Prevention Division will continue to work with departments to ensure that the City meets its inspection requirements as outlined in the City's 2008 JURMP. Specifically, the Pollution Prevention Division will meet with departments quarterly in FY 2009 to identify inspection program deficiencies so that they can be adequately addressed in future storm water trainings. The Pollution Prevention Division will also participate in one of the two required inspections for all municipal departments, and will continue to send out reminders City-wide about Municipal Permit responsibilities in FY 2009.

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